

TITLE V—RESEARCH

Subtitle A—Funding

SEC. 5101. AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL.—The following sums are authorized to be appropriated out of the Highway Trust Fund (other than the Mass Transit Account):

(1) SURFACE TRANSPORTATION RESEARCH, DEVELOPMENT, AND DEPLOYMENT PROGRAM.—To carry out sections 502, 503, 506, 507, 509, and 510 of title 23, United States Code, and sections 5201, 5203, 5204, 5309, 5501, 5502, 5503, 5504, 5506, 5511, 5512, 5513 of this title \$196,400,000 for each of fiscal years 2005 through 2009 shall be available.

(2) TRAINING AND EDUCATION.—To carry out section 504 of title 23, United States Code, and section 5502 of this Act \$26,700,000 for each of fiscal years 2005 through 2009.

(3) BUREAU OF TRANSPORTATION STATISTICS.—For the Bureau of Transportation Statistics to carry out section 111 of title 49, United States Code, \$27,000,000 for each of fiscal years 2005 through 2009.

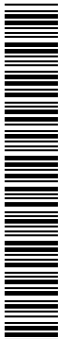


1 (4) UNIVERSITY TRANSPORTATION RE-
2 SEARCH.—To carry out sections 5505 and 5506 of
3 title 49, United States Code, \$69,700,000 for each
4 of fiscal years 2005 through 2009.

5 (5) INTELLIGENT TRANSPORTATION SYSTEMS
6 (ITS) RESEARCH.—To carry out subtitle C of this
7 title, and section 511 of title 23, United States
8 Code, \$110,000,000 for each of fiscal years 2005
9 through 2009.

10 (6) ITS DEPLOYMENT.—To carry out sections
11 5208 and 5209 of the Transportation Equity Act for
12 the 21st Century (112 Stat. 458; 112 Stat. 460),
13 \$122,000,000 for fiscal year 2005.

14 (b) APPLICABILITY OF TITLE 23, UNITED STATES
15 CODE.—Funds authorized to be appropriated by sub-
16 section (a) shall be available for obligation in the same
17 manner as if such funds were apportioned under chapter
18 1 of title 23, United States Code; except that the Federal
19 share of the cost of a project or activity carried out using
20 such funds shall be 50 percent, unless otherwise expressly
21 provided by this Act (including the amendments made by
22 this Act) or otherwise determined by the Secretary, and
23 such funds shall remain available until expended and shall
24 not be transferable.



1 **SEC. 5102. OBLIGATION CEILING.**

2 Notwithstanding any other provision of law, the total
3 of all obligations from amounts made available from the
4 Highway Trust Fund (other than the Mass Transit Ac-
5 count) by section 5101(a) of this Act shall be
6 \$410,888,888 for each of fiscal years 2005 through 2009.

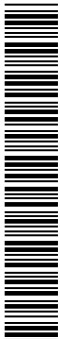
7 **SEC. 5103. FINDINGS.**

8 Congress finds the following:

9 (1) Research and development are critical to de-
10 veloping and maintaining a transportation system
11 that meets the goals of safety, mobility, economic vi-
12 tality, efficiency, equity, and environmental protec-
13 tion.

14 (2) Federally sponsored surface transportation
15 research and development has produced many suc-
16 cesses. The development of rumble strips has in-
17 creased safety; research on materials has increased
18 the lifespan of pavements, saving money and reduc-
19 ing the disruption caused by construction; and Geo-
20 graphic Information Systems have improved the
21 management and efficiency of transit fleets.

22 (3) Despite these important successes, the Fed-
23 eral surface transportation research and develop-
24 ment investment represents less than one percent of
25 overall Government spending on surface transpor-
26 tation.



1 (4) While Congress increased funding for over-
2 all transportation programs by about 40 percent in
3 the Transportation Equity Act for the 21st Century,
4 funding for transportation research and development
5 remained relatively flat.

6 (5) The Federal investment in research and de-
7 velopment should be balanced between short-term
8 applied and long-term fundamental research and de-
9 velopment. The investment should also cover a wide
10 range of research areas, including research on mate-
11 rials and construction, research on operations, re-
12 search on transportation trends and human factors,
13 and research addressing the institutional barriers to
14 deployment of new technologies.

15 (6) That it is in the United States interest to
16 increase the Federal investment in transportation re-
17 search and development, and to conduct research in
18 critical research gaps, in order to ensure that the
19 transportation system meets the goals of safety, mo-
20 bility, economic vitality, efficiency, equity, and envi-
21 ronmental protection.



1 **Subtitle B—Research, Technology,**
2 **and Education**

3 **SEC. 5201. RESEARCH, TECHNOLOGY, AND EDUCATION.**

4 (a) RESEARCH, TECHNOLOGY, AND EDUCATION.—

5 Title 23, United States Code, is amended—

6 (1) in the table of chapters by striking the item

7 relating to chapter 5 and inserting the following:

“5. Research, Technology, and Education 501”

8 ; and

9 (2) by striking the heading for chapter 5 and

10 inserting the following:

11 **“CHAPTER 5—RESEARCH, TECHNOLOGY,**
12 **AND EDUCATION”.**

13 (b) STATEMENT OF PRINCIPLES GOVERNING RE-

14 SEARCH AND TECHNOLOGY INVESTMENTS.—Section 502

15 of such title is amended—

16 (1) by redesignating subsections (a) through (g)

17 as subsections (b) through (h), respectively; and

18 (2) by inserting before subsection (b) (as so re-

19 designated) the following:

20 **“(a) BASIC PRINCIPLES GOVERNING RESEARCH AND**

21 **TECHNOLOGY INVESTMENTS.—**

22 **“(1) COVERAGE.—**Surface transportation re-

23 search and technology development shall include all

24 activities leading to technology development and



1 transfer, as well as the introduction of new and in-
2 novative ideas, practices, and approaches, through
3 such mechanisms as field applications, education and
4 training, and technical support.

5 “(2) FEDERAL RESPONSIBILITY.—Funding and
6 conducting surface transportation research and tech-
7 nology transfer activities shall be considered a basic
8 responsibility of the Federal Government when the
9 work—

10 “(A) is of national significance;

11 “(B) supports research in which there is a
12 clear public benefit and private sector invest-
13 ment is less than optimal;

14 “(C) supports a Federal stewardship role
15 in assuring that State and local governments
16 use national resources efficiently; or

17 “(D) presents the best means to support
18 Federal policy goals compared to other policy
19 alternatives.

20 “(3) ROLE.—Consistent with these Federal re-
21 sponsibilities, the Secretary shall—

22 “(A) conduct research;

23 “(B) support and facilitate research and
24 technology transfer activities by State highway
25 agencies;



1 “(C) share results of completed research;
2 and

3 “(D) support and facilitate technology and
4 innovation deployment.

5 “(4) PROGRAM CONTENT.—A surface transpor-
6 tation research program shall include—

7 “(A) fundamental, long-term highway re-
8 search;

9 “(B) research aimed at significant highway
10 research gaps and emerging issues with na-
11 tional implications; and

12 “(C) research related to policy and plan-
13 ning.

14 “(5) STAKEHOLDER INPUT.—Federal surface
15 transportation research and development activities
16 shall address the needs of stakeholders. Stakeholders
17 include States, metropolitan planning organizations,
18 local governments, the private sector, researchers,
19 research sponsors, and other affected parties, includ-
20 ing public interest groups.

21 “(6) COMPETITION AND PEER REVIEW.—Ex-
22 cept as otherwise provided in this chapter, the Sec-
23 retary shall award, to the maximum extent prac-
24 ticable, all grants, contracts, and cooperative agree-
25 ments for research and development under this



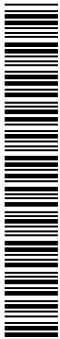
1 chapter based on open competition and peer review
2 of proposals.

3 “(7) PERFORMANCE REVIEW AND EVALUA-
4 TION.—To the maximum extent practicable, all sur-
5 face transportation research and development
6 projects shall include a component of performance
7 measurement and evaluation. Performance measures
8 shall be established during the proposal stage of a
9 research and development project and shall, to the
10 maximum extent possible, be outcome-based. All
11 evaluations shall be made readily available to the
12 public.

13 “(8) TECHNOLOGICAL INNOVATION.—The pro-
14 grams and activities carried out under this section
15 shall be consistent with the surface transportation
16 research and technology development strategic plan
17 developed under section 508.”.

18 (c) PROCUREMENT FOR RESEARCH, DEVELOPMENT,
19 AND TECHNOLOGY TRANSFER ACTIVITIES.—Section
20 502(b)(3) of such title (as redesignated by subsection (b)
21 of this section) is amended to read as follows:

22 “(3) COOPERATION, GRANTS, AND CON-
23 TRACTS.—The Secretary may carry out research, de-
24 velopment, and technology transfer activities related
25 to transportation—



1 “(A) independently;

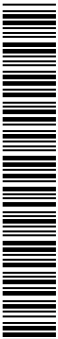
2 “(B) in cooperation with other Federal de-
3 partments, agencies, and instrumentalities and
4 Federal laboratories; or

5 “(C) by making grants to, or entering into
6 contracts and cooperative agreements with one
7 or more of the following: the National Academy
8 of Sciences, the American Association of State
9 Highway and Transportation Officials, any
10 Federal laboratory, Federal agency, State agen-
11 cy, authority, association, institution, for-profit
12 or nonprofit corporation, organization, foreign
13 country, or any other person.”.

14 (d) TRANSPORTATION POOLED FUND PROGRAM.—
15 Section 502(b) of such title (as redesignated by subsection
16 (b) of this section) is amended by adding at the end the
17 following:

18 “(6) POOLED FUNDING.—

19 “(A) COOPERATION.—To promote effective
20 utilization of available resources, the Secretary
21 may cooperate with a State and an appropriate
22 agency in funding research, development, and
23 technology transfer activities of mutual interest
24 on a pooled funds basis.



1 “(B) SECRETARY AS AGENT.—The Sec-
2 retary may enter into contracts, cooperative
3 agreements, and grants as the agent for all par-
4 ticipating parties in carrying out such research,
5 development, or technology transfer activities.”.

6 (e) OPERATIONS ELEMENTS IN RESEARCH ACTIVI-
7 TIES.—Section 502 of such title is further amended—

8 (1) in subsection (b)(1)(B) (as redesignated by
9 subsection (b) of this section) by inserting “trans-
10 portation system management and operations,” after
11 “operation,”;

12 (2) in subsection (d)(5)(C) (as redesignated by
13 subsection (b) of this section) by inserting “system
14 management and” after “transportation”; and

15 (3) by inserting at the end of subsection (d) (as
16 redesignated by subsection (b) of this section) the
17 following:

18 “(12) Investigation and development of various
19 operational methodologies to reduce the occurrence
20 and impact of recurrent congestion and nonrecurrent
21 congestion and increase transportation system reli-
22 ability.

23 “(13) Investigation of processes, procedures,
24 and technologies to secure container and hazardous
25 material transport, including the evaluation of regu-



1 lations and the impact of good security practices on
2 commerce and productivity.

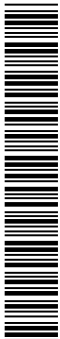
3 “(14) Research, development, and technology
4 transfer related to asset management.”.

5 (f) FACILITATING TRANSPORTATION RESEARCH AND
6 TECHNOLOGY DEPLOYMENT PARTNERSHIPS.—Section
7 502(c)(2) of such title (as redesignated by subsection (b)
8 of this section) is amended to read as follows:

9 “(2) COOPERATION, GRANTS, CONTRACTS, AND
10 AGREEMENTS.—Notwithstanding any other provision
11 of law, the Secretary may directly initiate contracts,
12 cooperative research and development agreements
13 (as defined in section 12 of the Stevenson-Wydler
14 Technology Innovation Act of 1980 (15 U.S.C.
15 3710a)) to fund, and accept funds from, the Trans-
16 portation Research Board of the National Research
17 Council of the National Academy of Sciences, State
18 departments of transportation, cities, counties, and
19 their agents to conduct joint transportation research
20 and technology efforts.”.

21 (g) EXPLORATORY ADVANCED RESEARCH PRO-
22 GRAM.—Section 502(e) of such title (as redesignated by
23 subsection (b) of this section) is amended to read as fol-
24 lows:

25 “(e) EXPLORATORY ADVANCED RESEARCH.—



1 “(1) IN GENERAL.—The Secretary shall estab-
2 lish an exploratory advanced research program, con-
3 sistent with the surface transportation research and
4 technology development strategic plan developed
5 under section 508 that addresses longer-term, high-
6 er-risk research with potentially dramatic break-
7 throughs for improving the durability, efficiency, en-
8 vironmental impact, productivity, and safety (includ-
9 ing bicycle and pedestrian safety) aspects of highway
10 and intermodal transportation systems. In carrying
11 out the program, the Secretary shall strive to de-
12 velop partnerships with public and private sector en-
13 tities.

14 “(2) RESEARCH AREAS.—In carrying out the
15 program, the Secretary may make grants and enter
16 into cooperative agreements and contracts in such
17 areas of surface transportation research and tech-
18 nology as the Secretary determines appropriate, in-
19 cluding the following:

20 “(A) Characterization of materials used in
21 highway infrastructure, including analytical
22 techniques, microstructure modeling, and the
23 deterioration processes.

24 “(B) Assessment of the effects of transpor-
25 tation decisions on human health.



1 “(C) Development of surrogate measures
2 of safety.

3 “(D) Environmental research.

4 “(E) Data acquisition techniques for sys-
5 tem condition and performance monitoring.

6 “(F) System performance data and infor-
7 mation processing needed to assess the day-to-
8 day operational performance of the system in
9 support of hour-to-hour operational decision-
10 making.”.

11 (h) FUNDING.—Of the amounts made available by
12 section 5101(a) of this Act, \$14,000,000 for each of fiscal
13 years 2005 through 2009 shall be available to carry out
14 section 502(e) of such title.

15 (i) LONG-TERM PAVEMENT PERFORMANCE PRO-
16 GRAM.—

17 (1) IN GENERAL.—Section 502(f) of such title
18 (as redesignated by subsection (b) of this section) is
19 amended to read as follows:

20 “(f) LONG-TERM PAVEMENT PERFORMANCE PRO-
21 GRAM.—

22 “(1) AUTHORITY.—The Secretary shall con-
23 tinue to carry out, through September 30, 2009,
24 tests, monitoring, and data analysis under the long-
25 term pavement performance program.



1 “(2) GRANTS, COOPERATIVE AGREEMENTS, AND
2 CONTRACTS.—Under the program, the Secretary
3 shall make grants and enter into cooperative agree-
4 ments and contracts to—

5 “(A) monitor, material-test, and evaluate
6 highway test sections in existence as of the date
7 of the grant, agreement, or contract;

8 “(B) analyze the data obtained under sub-
9 paragraph (A); and

10 “(C) prepare products to fulfill program
11 objectives and meet future pavement technology
12 needs.”.

13 (2) FUNDING.—Of the amounts made available
14 by section 5101(a)(1) of this Act, \$10,120,000 for
15 each of fiscal years 2005 through 2009 shall be
16 available to carry out section 502(f) of such title.

17 (j) SEISMIC RESEARCH.—

18 (1) IN GENERAL.—Section 502(g) of such title
19 (as redesignated by subsection (b) of this section) is
20 amended to read as follows:

21 “(g) SEISMIC RESEARCH.—The Secretary shall—

22 “(1) in consultation and cooperation with Fed-
23 eral agencies participating in the National Earth-
24 quake Hazards Reduction Program established by
25 section 5 of the Earthquake Hazards Reduction Act



1 of 1977 (42 U.S.C. 7704), coordinate the conduct of
2 seismic research;

3 “(2) take such actions as are necessary to en-
4 sure that the coordination of the research is con-
5 sistent with—

6 “(A) planning and coordination activities
7 of the National Institute of Standards and
8 Technology under section 5(b)(1) of that Act
9 (42 U.S.C. 7704(b)(1)); and

10 “(B) the plan developed by the Director of
11 the National Institute of Standards and Tech-
12 nology under section 8(b) of that Act (42
13 U.S.C. 7705b(b)); and

14 “(3) in cooperation with the Center for Civil
15 Engineering Research at the University of Nevada,
16 Reno, and the National Center for Earthquake En-
17 gineering Research at the University of Buffalo,
18 carry out a seismic research program—

19 “(A) to study the vulnerability of the Fed-
20 eral-aid system and other surface transpor-
21 tation systems to seismic activity;

22 “(B) to develop and implement cost-effec-
23 tive methods to reduce the vulnerability; and



1 “(C) to conduct seismic research and up-
2 grade earthquake simulation facilities as nec-
3 essary to carry out the program.”.

4 (2) FUNDING.—Of the amounts made available
5 by section 5101(a)(1) of this Act, \$2,500,000 for
6 each of fiscal years 2005 through 2009 shall be
7 available to carry out section 502(g) of such title.

8 (k) INFRASTRUCTURE INVESTMENT NEEDS RE-
9 PORT.—Section 502 of such title is further amended by
10 adding at the end the following:

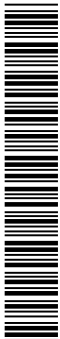
11 “(h) INFRASTRUCTURE INVESTMENT NEEDS RE-
12 PORT.—

13 “(1) IN GENERAL.—Not later than July 31,
14 2006, and July 31 of every second year thereafter,
15 the Secretary shall submit to the Committee on En-
16 vironment and Public Works of the Senate and the
17 Committee on Transportation and Infrastructure of
18 the House of Representatives a report that
19 describes—

20 “(A) estimates of the future highway, tran-
21 sit, and bridge needs of the United States; and

22 “(B) the backlog of current highway, tran-
23 sit, and bridge needs.

24 “(2) COMPARISON WITH PRIOR REPORTS.—
25 Each report under paragraph (1) shall provide the



1 means, including all necessary information, to relate
2 and compare the conditions and service measures
3 used in the previous biennial reports.”.

4 (l) TURNER-FAIRBANK HIGHWAY RESEARCH CEN-
5 TER.—Section 502 of such title is further amended by
6 adding at the end the following:

7 “(i) TURNER-FAIRBANK HIGHWAY RESEARCH CEN-
8 TER.—

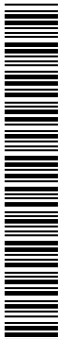
9 “(1) IN GENERAL.—The Secretary shall operate
10 in the Federal Highway Administration a Turner-
11 Fairbank Highway Research Center.

12 “(2) USES OF THE CENTER.—The Turner-
13 Fairbank Highway Research Center shall support—

14 “(A) the conduct of highway research and
15 development related to new highway technology;

16 “(B) the development of understandings,
17 tools, and techniques that provide solutions to
18 complex technical problems through the devel-
19 opment of economical and environmentally sen-
20 sitive designs, efficient and quality-controlled
21 construction practices, and durable materials;
22 and

23 “(C) the development of innovative high-
24 way products and practices.”.



1 (m) BIOBASED TRANSPORTATION RESEARCH.—Of
2 the amounts made available by section 5101(a)(1) of this
3 Act, \$12,500,000 for each of fiscal years 2006 through
4 2009, equally divided and available, shall be available to
5 carry out biobased research of national importance at the
6 National Biodiesel Board and at research centers identi-
7 fied in section 9011 of the Farm Security and Rural In-
8 vestment Act of 2002 (7 U.S.C. 8109).

9 **SEC. 5202. LONG-TERM BRIDGE PERFORMANCE PROGRAM;**
10 **INNOVATIVE BRIDGE RESEARCH AND DE-**
11 **PLOYMENT PROGRAM.**

12 (a) LONG-TERM BRIDGE PERFORMANCE PRO-
13 GRAM.—

14 (1) IN GENERAL.—Section 502 of title 23,
15 United States Code, is further amended by adding
16 at the end the following:

17 “(j) LONG-TERM BRIDGE PERFORMANCE PRO-
18 GRAM.—

19 “(1) AUTHORITY.—The Secretary shall estab-
20 lish a 20-year long-term bridge performance pro-
21 gram.

22 “(2) GRANTS, COOPERATIVE AGREEMENTS, AND
23 CONTRACTS.—Under the program, the Secretary
24 shall make grants and enter into cooperative agree-
25 ments and contracts to—



1 “(A) monitor, material-test, and evaluate
2 test bridges;

3 “(B) analyze the data obtained under sub-
4 paragraph (A); and

5 “(C) prepare products to fulfill program
6 objectives and meet future bridge technology
7 needs.”.

8 (2) FUNDING.—Of the amounts made available
9 by section 5101(a)(1) of this Act, \$7,750,000 for
10 each of fiscal years 2006 through 2009 shall be
11 available to carry out section 502(j) of such title.

12 (b) INNOVATIVE BRIDGE RESEARCH AND DEPLOY-
13 MENT PROGRAM.—

14 (1) IN GENERAL.—Section 503(b)(1) of such
15 title is amended to read as follows:

16 “(1) IN GENERAL.—The Secretary shall estab-
17 lish and carry out a program to promote, dem-
18 onstrate, evaluate, and document the application of
19 innovative designs, materials, and construction
20 methods in the construction, repair, and rehabilita-
21 tion of bridges and other highway structures.”.

22 (2) GOALS.—Section 503(b)(2) of such title is
23 amended to read as follows:

24 “(2) GOALS.—The goals of the program shall
25 include—



1 “(A) the development of new, cost-effec-
2 tive, innovative highway bridge applications;

3 “(B) the development of construction tech-
4 niques to increase safety and reduce construc-
5 tion time and traffic congestion;

6 “(C) the development of engineering design
7 criteria for innovative products, materials, and
8 structural systems for use in highway bridges
9 and structures;

10 “(D) the reduction of maintenance costs
11 and life-cycle costs of bridges, including the
12 costs of new construction, replacement, or reha-
13 bilitation of deficient bridges;

14 “(E) the development of highway bridges
15 and structures that will withstand natural dis-
16 asters;

17 “(F) the documentation and wide dissemi-
18 nation of objective evaluations of the perform-
19 ance and benefits of these innovative designs,
20 materials, and construction methods;

21 “(G) the effective transfer of resulting in-
22 formation and technology; and

23 “(H) the development of improved methods
24 to detect bridge scour and economical bridge



1 foundation designs that will withstand bridge
2 scour.”.

3 (3) FUNDING.—

4 (A) IN GENERAL.—Of the amounts made
5 available by section 5101(a)(1) of this Act,
6 \$13,100,000 for each of fiscal years 2005
7 through 2009 shall be available to carry out
8 section 503(b) of such title.

9 (B) HIGH PERFORMANCE CONCRETE
10 BRIDGE TECHNOLOGY RESEARCH AND DEPLOY-
11 MENT.—The Secretary shall obligate
12 \$4,125,000 of the amount described in subpara-
13 graph (A) for each of fiscal years 2006 through
14 2009 to conduct research and deploy technology
15 related to high-performance concrete bridges.

16 (c) HIGH PERFORMING STEEL BRIDGE RESEARCH
17 AND TECHNOLOGY TRANSFER.—

18 (1) IN GENERAL.—The Secretary shall carry
19 out a program to demonstrate the application of
20 high-performing steel in the construction and reha-
21 bilitation of bridges.

22 (2) FUNDING.—Of the amounts made available
23 by section 5101(a)(1) of this Act, \$4,100,000 for
24 each of fiscal years 2006 through 2009 shall be
25 available to carry out this subsection.



1 (d) STEEL BRIDGE TESTING.—

2 (1) IN GENERAL.—The Secretary shall carry
3 out a program to test steel bridges using a non-
4 destructive technology that is able to detect growing
5 cracks, including subsurface flaws as small as 0.010
6 inches in length or depth, in the bridges.

7 (2) FUNDING.—Of the amounts made available
8 by section 5101(a)(1) of this Act, \$1,250,000 for
9 each of fiscal years 2006 through 2009 shall be
10 available to carry out this subsection.

11 (3) FEDERAL SHARE.—The Federal share of
12 the cost of activities carried out in accordance with
13 this subsection shall be 80 percent.

14 **SEC. 5203. TECHNOLOGY DEPLOYMENT.**

15 (a) TECHNOLOGY DEPLOYMENT PROGRAM.—Section
16 503(a) of title 23, United States Code, is amended—

17 (1) in the subsection heading by striking “INI-
18 TIATIVES AND PARTNERSHIPS”;

19 (2) by striking paragraph (1) and inserting the
20 following:

21 “(1) ESTABLISHMENT.—The Secretary shall
22 develop and administer a national technology deploy-
23 ment program.”;

24 (3) by striking paragraph (7) and inserting the
25 following:



1 “(7) GRANTS, COOPERATIVE AGREEMENTS, AND
2 CONTRACTS.—

3 “(A) IN GENERAL.—Under the program,
4 the Secretary may make grants to, and enter
5 into cooperative agreements and contracts with,
6 States, other Federal agencies, universities and
7 colleges, private sector entities, and nonprofit
8 organizations to pay the Federal share of the
9 cost of research, development, and technology
10 transfer activities concerning innovative mate-
11 rials.

12 “(B) APPLICATIONS.—To receive a grant
13 under this subsection, an entity described in
14 subparagraph (A) shall submit an application to
15 the Secretary. The application shall be in such
16 form and contain such information as the Sec-
17 retary may require. The Secretary shall select
18 and approve an application based on whether
19 the project that is the subject of the grant
20 meets the purpose of the program described in
21 paragraph (2).”; and

22 (4) by striking paragraph (8) and inserting the
23 following:

24 “(8) TECHNOLOGY AND INFORMATION TRANS-
25 FER.—The Secretary shall ensure that the informa-



1 tion and technology resulting from research con-
2 ducted under paragraph (7) is made available to
3 State and local transportation departments and
4 other interested parties as specified by the Sec-
5 retary.”.

6 (b) INNOVATIVE PAVEMENT RESEARCH AND DE-
7 PLOYMENT PROGRAM.—

8 (1) IN GENERAL.—Section 503 of such title is
9 further amended by adding at the end the following:
10 “(c) INNOVATIVE PAVEMENT RESEARCH AND DE-
11 PLOYMENT PROGRAM.—

12 “(1) IN GENERAL.—The Secretary shall estab-
13 lish and implement a program to promote, dem-
14 onstrate, support, and document the application of
15 innovative pavement technologies, practices, per-
16 formance, and benefits.

17 “(2) GOALS.—The goals of the innovative pave-
18 ment research and deployment program shall
19 include—

20 “(A) the deployment of new, cost-effective,
21 innovative designs, materials, recycled materials
22 (including taconite tailings and foundry sand),
23 and practices to extend pavement life and per-
24 formance and to improve customer satisfaction;



1 “(B) the reduction of initial costs and life-
2 cycle costs of pavements, including the costs of
3 new construction, replacement, maintenance,
4 and rehabilitation;

5 “(C) the deployment of accelerated con-
6 struction techniques to increase safety and re-
7 duce construction time and traffic disruption
8 and congestion;

9 “(D) the deployment of engineering design
10 criteria and specifications for innovative prac-
11 tices, products, and materials for use in high-
12 way pavements;

13 “(E) the deployment of new nondestructive
14 and real-time pavement evaluation technologies
15 and techniques;

16 “(F) the evaluation, refinement, and docu-
17 mentation of the performance and benefits of
18 innovative technologies deployed to improve life,
19 performance, cost effectiveness, safety, and cus-
20 tomer satisfaction;

21 “(G) effective technology transfer and in-
22 formation dissemination to accelerate imple-
23 mentation of innovative technologies and to im-
24 prove life, performance, cost effectiveness, safe-
25 ty, and customer satisfaction; and



1 “(H) the development of designs and mate-
2 rials to reduce storm water runoff.

3 “(3) RESEARCH TO IMPROVE NHS PAVE-
4 MENT.—The Secretary shall obligate for each of fis-
5 cal years 2006 through 2009 from funds made avail-
6 able to carry out this subsection, \$4,100,000 to con-
7 duct research to improve asphalt pavement,
8 \$4,100,000 to conduct research to improve concrete
9 pavement, \$4,100,000 to conduct research to im-
10 prove alternative materials used in highways (includ-
11 ing alternative materials used in highway drainage
12 applications), and \$2,450,000 to conduct research to
13 improve aggregates used in highways on the Na-
14 tional Highway System.”.

15 (2) FUNDING.—Of the amounts made available
16 by section 5101(a)(1) of this Act, \$22,625,000 for
17 each of fiscal years 2006 through 2009 shall be
18 available to carry out section 503(c) of such title.

19 (c) SAFETY INNOVATION DEPLOYMENT PROGRAM.—

20 (1) IN GENERAL.—Section 503 of such title is
21 further amended by adding at the end the following:

22 “(d) SAFETY INNOVATION DEPLOYMENT PRO-
23 GRAM.—

24 “(1) IN GENERAL.—The Secretary shall estab-
25 lish and implement a program to demonstrate the



1 application of innovative technologies in highway
2 safety.

3 “(2) GOALS.—The goals of the program shall
4 include—

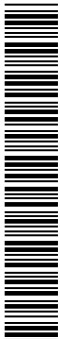
5 “(A) the deployment and evaluation of
6 safety technologies and innovations at State
7 and local levels; and

8 “(B) the deployment of best practices in
9 training, management, design, and planning.

10 “(3) GRANTS, COOPERATIVE AGREEMENTS, AND
11 CONTRACTS.—

12 “(A) IN GENERAL.—Under the program,
13 the Secretary shall make grants to, and enter
14 into cooperative agreements and contracts with,
15 States, other Federal agencies, universities and
16 colleges, private sector entities, and nonprofit
17 organizations for research, development, and
18 technology transfer for innovative safety tech-
19 nologies.

20 “(B) APPLICATIONS.—To receive a grant
21 under this subsection, an entity described in
22 subparagraph (A) shall submit to the Secretary
23 an application at such time and containing such
24 information as the Secretary may require. The
25 Secretary shall select and approve an applica-



1 tion based on whether the project that is the
2 subject of the application meets the goals of the
3 program described in paragraph (2).

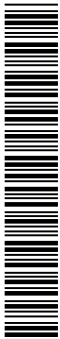
4 “(4) TECHNOLOGY AND INFORMATION TRANS-
5 FER.—The Secretary shall take such action as is
6 necessary to ensure that the information and tech-
7 nology resulting from research conducted under
8 paragraph (3) is made available to State and local
9 transportation departments and other interested
10 parties as specified by the Secretary.”.

11 (2) FUNDING.—Of the amounts made available
12 by section 5101(a)(1) of this Act, \$12,750,000 for
13 each of fiscal years 2006 through 2009 shall be
14 available to carry out section 503(d) of such title.

15 (d) AUTHORITY TO PURCHASE PROMOTIONAL
16 ITEMS.—Section 503 of such title is further amended by
17 adding at the end the following:

18 “(e) PROMOTIONAL AUTHORITY.—Funds authorized
19 to be appropriated for necessary expenses for administra-
20 tion and operation of the Federal Highway Administration
21 shall be available to purchase promotional items of nomi-
22 nal value for use in the recruitment of individuals and to
23 promote the programs of the Federal Highway Adminis-
24 tration.”.

25 (e) DEMONSTRATION PROJECTS AND STUDIES.—



1 (1) WOOD COMPOSITE MATERIALS DEMONSTRA-
2 TION PROJECT.—Of the funds made available by
3 section 5101(a)(1) of this Act, \$1,000,000 for each
4 of fiscal years 2006 and 2007 shall be made avail-
5 able for conducting a demonstration at the Univer-
6 sity of Maine of the durability and potential effec-
7 tiveness of wood composite materials in multimodal
8 transportation facilities.

9 (2) ASPHALT RECLAMATION STUDY.—Of the
10 funds made available by section 5101(a)(1) of this
11 Act, \$1,500,000 for fiscal year 2006 shall be avail-
12 able for asphalt and asphalt-related reclamation re-
13 search at the South Dakota School of Mines.

14 (3) ALKALI SILICA REACTIVITY.—Of the funds
15 made available by section 5101(a)(1) of this Act,
16 \$2,450,000 shall be made available by the Secretary
17 for each of fiscal years 2006 through 2009 for fur-
18 ther development and deployment of techniques to
19 prevent and mitigate alkali silica reactivity.

20 (4) FEDERAL SHARE.—The Federal share of
21 the cost of the projects—

22 (A) under paragraph (1) shall be 100 per-
23 cent; and

24 (B) under paragraphs (2) and (3) shall be
25 the share applicable under section 120(b) of



1 such title unless otherwise specified or deter-
2 mined by the Secretary.

3 (f) **TURNER-FAIRBANK FACILITY.**—Of the funds
4 made available by section 5101(a)(1) of this Act,
5 \$625,000 shall be available for each of fiscal years 2006
6 through 2009 to provide for physical demonstrations of
7 the ongoing work at the Turner-Fairbank facility with re-
8 spect to ultra-high performance concrete with ductility.

9 **SEC. 5204. TRAINING AND EDUCATION.**

10 (a) **NATIONAL HIGHWAY INSTITUTE.**—

11 (1) **COURSES.**—Section 504(a)(3) of title 23,
12 United States Code, is amended to read as follows:

13 “(3) **COURSES.**—

14 “(A) **IN GENERAL.**—The Institute shall—

15 “(i) develop or update existing courses
16 in asset management, including courses
17 that include such components as—

18 “(I) the determination of life-
19 cycle costs;

20 “(II) the valuation of assets;

21 “(III) benefit-to-cost ratio cal-
22 culations; and

23 “(IV) objective decisionmaking
24 processes for project selection; and



1 “(ii) continually develop courses relat-
2 ing to the application of emerging tech-
3 nologies for—

4 “(I) transportation infrastructure
5 applications and asset management;

6 “(II) intelligent transportation
7 systems;

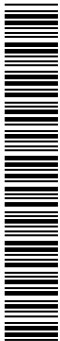
8 “(III) operations (including secu-
9 rity operations);

10 “(IV) the collection and archiving
11 of data;

12 “(V) expediting the planning and
13 development of transportation
14 projects; and

15 “(VI) the intermodal movement
16 of individuals and freight.

17 “(B) ADDITIONAL COURSES.—In addition
18 to the courses developed under subparagraph
19 (A), the Institute, in consultation with State
20 transportation departments, metropolitan plan-
21 ning organizations, and the American Associa-
22 tion of State Highway and Transportation Offi-
23 cials, may develop courses relating to tech-
24 nology, methods, techniques, engineering, con-
25 struction, safety, maintenance, environmental



1 mitigation and compliance, regulations, man-
2 agement, inspection, and finance.

3 “(C) REVISION OF COURSES OFFERED.—

4 The Institute shall periodically—

5 “(i) review the course inventory of the
6 Institute; and

7 “(ii) revise or cease to offer courses
8 based on course content, applicability, and
9 need.”.

10 (2) FUNDING.—Of the amounts made available
11 by section 5101(a)(2) of this Act, \$9,600,000 for
12 each of fiscal years 2005 through 2009 shall be
13 available to carry out section 504(a) of such title.

14 (b) LOCAL TECHNICAL ASSISTANCE PROGRAM.—

15 Section 504(b) of such title is amended to read as follows:

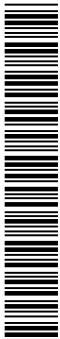
16 “(b) LOCAL TECHNICAL ASSISTANCE PROGRAM.—

17 “(1) AUTHORITY.—The Secretary shall carry
18 out a local technical assistance program that will
19 provide access to surface transportation technology
20 to—

21 “(A) highway and transportation agencies
22 in urbanized and rural areas;

23 “(B) contractors that perform work for the
24 agencies; and

25 “(C) infrastructure security staff.



1 “(2) GRANTS, COOPERATIVE AGREEMENTS, AND
2 CONTRACTS.—The Secretary may make grants and
3 enter into cooperative agreements and contracts to
4 provide education and training, technical assistance,
5 and related support services to—

6 “(A) assist rural, local transportation
7 agencies and tribal governments, and the con-
8 sultants and construction personnel working for
9 the agencies and governments, to—

10 “(i) develop and expand expertise in
11 road and transportation areas (including
12 pavement, bridge, concrete structures,
13 intermodal connections, safety manage-
14 ment systems, intelligent transportation
15 systems, incident response, operations, and
16 traffic safety countermeasures);

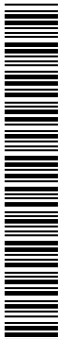
17 “(ii) improve roads and bridges;

18 “(iii) enhance—

19 “(I) programs for the movement
20 of passengers and freight; and

21 “(II) intergovernmental transpor-
22 tation planning and project selection;
23 and

24 “(iv) deal effectively with special
25 transportation-related problems by pre-



1 paring and providing training packages,
2 manuals, guidelines, and technical resource
3 materials;

4 “(B) develop technical assistance for tour-
5 ism and recreational travel;

6 “(C) identify, package, and deliver trans-
7 portation technology and traffic safety informa-
8 tion to local jurisdictions to assist urban trans-
9 portation agencies in developing and expanding
10 their ability to deal effectively with transpor-
11 tation-related problems (particularly the pro-
12 motion of regional cooperation);

13 “(D) operate, in cooperation with State
14 transportation departments and universities—

15 “(i) local technical assistance program
16 centers designated to provide transpor-
17 tation technology transfer services to rural
18 areas and to urbanized areas; and

19 “(ii) local technical assistance pro-
20 gram centers designated to provide trans-
21 portation technical assistance to tribal gov-
22 ernments; and

23 “(E) allow local transportation agencies
24 and tribal governments, in cooperation with the



1 private sector, to enhance new technology im-
2 plementation.

3 “(3) FEDERAL SHARE.—The Federal share of
4 the cost of activities carried out by the tribal tech-
5 nical assistance centers under paragraph (2)(D)(ii)
6 shall be 100 percent. ”.

7 (c) FUNDING.—Of the funds made available by sec-
8 tion 5101(a)(2) of this Act, \$11,100,000 for each of fiscal
9 years 2005 through 2009 shall be available to carry out
10 section 504(b) of such title.

11 (d) GARRETT A. MORGAN TECHNOLOGY AND TRANS-
12 PORTATION EDUCATION PROGRAM.—

13 (1) IN GENERAL.—Section 504 of such title, is
14 further amended by adding at the end the following
15 new subsection:

16 “(d) GARRETT A. MORGAN TECHNOLOGY AND
17 TRANSPORTATION EDUCATION PROGRAM.—

18 “(1) IN GENERAL.—The Secretary shall estab-
19 lish the Garrett A. Morgan Technology and Trans-
20 portation Education Program to improve the prepa-
21 ration of students, particularly women and minori-
22 ties, in science, technology, engineering, and mathe-
23 matics through curriculum development and other
24 activities related to transportation.



1 “(2) AUTHORIZED ACTIVITIES.—The Secretary
2 shall award grants under this subsection on the
3 basis of competitive peer review. Grants awarded
4 under this subsection may be used for enhancing
5 science, technology, engineering, and mathematics at
6 the elementary and secondary school level through
7 such means as—

8 “(A) internships that offer students experi-
9 ence in the transportation field;

10 “(B) programs that allow students to
11 spend time observing scientists and engineers in
12 the transportation field; and

13 “(C) developing relevant curriculum that
14 uses examples and problems related to trans-
15 portation.

16 “(3) APPLICATION AND REVIEW PROCE-
17 DURES.—

18 “(A) IN GENERAL.—An entity described in
19 subparagraph (C) seeking funding under this
20 subsection shall submit an application to the
21 Secretary at such time, in such manner, and
22 containing such information as the Secretary
23 may require. Such application, at a minimum,
24 shall include a description of how the funds will



1 be used to serve the purposes described in para-
2 graph (2).

3 “(B) PRIORITY.—In making awards under
4 this subsection, the Secretary shall give priority
5 to applicants that will encourage the participa-
6 tion of women and minorities.

7 “(C) ELIGIBILITY.—Local educational
8 agencies and State educational agencies, which
9 may enter into a partnership agreement with
10 institutions of higher education, businesses, or
11 other entities, shall be eligible to apply for
12 grants under this subsection.

13 “(4) DEFINITIONS.—In this subsection, the fol-
14 lowing definitions apply:

15 “(A) INSTITUTION OF HIGHER EDU-
16 CATION.—The term ‘institution of higher edu-
17 cation’ has the meaning given that term in sec-
18 tion 101 of the Higher Education Act of 1965
19 (20 U.S.C. 1001).

20 “(B) LOCAL EDUCATIONAL AGENCY.—The
21 term ‘local educational agency’ has the meaning
22 given that term in section 9101 of the Elemen-
23 tary and Secondary Education Act of 1965 (20
24 U.S.C. 7801).



1 “(C) STATE EDUCATIONAL AGENCY.—The
2 term ‘State educational agency’ has the mean-
3 ing given that term in section 9101 of the Ele-
4 mentary and Secondary Education Act of 1965
5 (20 U.S.C. 7801).”.

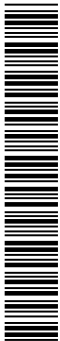
6 (2) FUNDING.—Of the amounts made available
7 by section 5101(a)(2) of this Act, \$1,250,000 for
8 each of fiscal years 2006 through 2009 shall be
9 available to carry out section 504(d) of such title.

10 (3) FEDERAL SHARE.—The Federal share of
11 the cost of activities carried out in accordance with
12 this section 504(d) of such title shall be 100 percent.

13 (e) SURFACE TRANSPORTATION WORKFORCE DE-
14 VELOPMENT, TRAINING, AND EDUCATION.—Section 504
15 of such title is further amended by adding at the end the
16 following:

17 “(e) SURFACE TRANSPORTATION WORKFORCE DE-
18 VELOPMENT, TRAINING, AND EDUCATION.—

19 “(1) FUNDING.—Subject to project approval by
20 the Secretary, a State may obligate funds appor-
21 tioned to the State under sections 104(b)(1),
22 104(b)(2), 104(b)(3), 104(b)(4), and 144(e) for sur-
23 face transportation workforce development, training,
24 and education, including—



1 “(A) tuition and direct educational ex-
2 penses, excluding salaries, in connection with
3 the education and training of employees of
4 State and local transportation agencies;

5 “(B) employee professional development;

6 “(C) student internships;

7 “(D) university or community college sup-
8 port; and

9 “(E) education activities, including out-
10 reach, to develop interest and promote partici-
11 pation in surface transportation careers.

12 “(2) FEDERAL SHARE.—The Federal share of
13 the cost of activities carried out in accordance with
14 this subsection shall be 100 percent.

15 “(3) SURFACE TRANSPORTATION WORKFORCE
16 DEVELOPMENT, TRAINING, AND EDUCATION DE-
17 FINED.—In this subsection, the term ‘surface trans-
18 portation workforce development, training, and edu-
19 cation’ means activities associated with surface
20 transportation career awareness, student transpor-
21 tation career preparation, and training and profes-
22 sional development for surface transportation work-
23 ers, including activities for women and minorities.

24 “(f) TRANSPORTATION EDUCATION DEVELOPMENT
25 PILOT PROGRAM.—



1 “(1) ESTABLISHMENT.—The Secretary shall es-
2 tablish a program to make grants to institutions of
3 higher education that, in partnership with industry
4 or State departments of transportation, will develop,
5 test, and revise new curricula and education pro-
6 grams to train individuals at all levels of the trans-
7 portation workforce.

8 “(2) SELECTION OF GRANT RECIPIENTS.—In
9 selecting applications for awards under this sub-
10 section, the Secretary shall consider—

11 “(A) the degree to which the new curricula
12 or education program meets the specific needs
13 of a segment of the transportation industry,
14 States, or regions;

15 “(B) providing for practical experience and
16 on-the-job training;

17 “(C) proposals oriented toward practi-
18 tioners in the field rather than the support and
19 growth of the research community;

20 “(D) the degree to which the new curricula
21 or program will provide training in areas other
22 than engineering, such as business administra-
23 tion, economics, information technology, envi-
24 ronmental science, and law;



1 “(E) programs or curricula in nontradi-
2 tional departments that train professionals for
3 work in the transportation field, such as mate-
4 rials, information technology, environmental
5 science, urban planning, and industrial tech-
6 nology; and

7 “(F) the commitment of industry or a
8 State’s department of transportation to the pro-
9 gram.

10 “(3) LIMITATIONS.—The amount of a grant
11 under this subsection shall not exceed \$300,000 per
12 year. After a recipient has received 3 years of Fed-
13 eral funding under this subsection, Federal funding
14 may equal not more than 75 percent of a grantee’s
15 program costs.”.

16 (f) FUNDING.—

17 (1) IN GENERAL.—Of the amounts made avail-
18 able by section 5101(a)(2) of this Act, \$1,875,000
19 for each of fiscal years 2006 through 2009 shall be
20 available to carry out section 504(f) of such title.

21 (2) FEDERAL SHARE.—The Federal share of
22 the cost of activities carried out in accordance with
23 section 504(f) of such title shall be 100 percent.

24 (g) TRANSPORTATION TECHNOLOGY INNOVA-
25 TIONS.—



1 (1) FUNDAMENTAL PROPERTIES OF ASPHALTS
2 AND MODIFIED ASPHALTS.—The Secretary shall
3 continue to carry out section 5117(b)(5) of the
4 Transportation Equity Act for the 21st Century
5 (112 Stat. 450).

6 (2) TRANSPORTATION, ECONOMIC, AND LAND
7 USE SYSTEM.—The Secretary shall continue to carry
8 out section 5117(b)(7) of the Transportation Equity
9 Act for the 21st Century (112 Stat. 450).

10 (3) FUNDING.—Of the amounts made available
11 by section 5101(a)(1) of this Act, for each of fiscal
12 years 2005 through 2009 \$4,200,000 shall be avail-
13 able to carry out paragraph (1) and \$1,000,000
14 shall be available to carry out paragraph (2).

15 (h) FREIGHT PLANNING CAPACITY BUILDING.—

16 (1) IN GENERAL.—Section 504 of title 23,
17 United States Code, is further amended by adding
18 at the end the following:

19 “(g) FREIGHT CAPACITY BUILDING PROGRAM.—

20 “(1) ESTABLISHMENT.—The Secretary shall es-
21 tablish a freight planning capacity building initiative
22 to support enhancements in freight transportation
23 planning in order to—



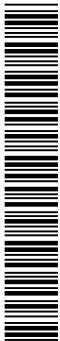
1 “(A) better target investments in freight
2 transportation systems to maintain efficiency
3 and productivity; and

4 “(B) strengthen the decisionmaking capac-
5 ity of State transportation departments and
6 local transportation agencies with respect to
7 freight transportation planning and systems.

8 “(2) AGREEMENTS.—The Secretary shall enter
9 into agreements to support and carry out adminis-
10 trative and management activities relating to the
11 governance of the freight planning capacity initia-
12 tive.

13 “(3) STAKEHOLDER INVOLVEMENT.—In car-
14 rying out this section, the Secretary shall consult
15 with the Association of Metropolitan Planning Orga-
16 nizations, the American Association of State High-
17 way and Transportation Officials, and other freight
18 planning stakeholders, including the other Federal
19 agencies, State transportation departments, local
20 governments, nonprofit entities, academia, and the
21 private sector.

22 “(4) ELIGIBLE ACTIVITIES.—The freight plan-
23 ning capacity building initiative shall include re-
24 search, training, and education in the following
25 areas:



1 “(A) The identification and dissemination
2 of best practices in freight transportation.

3 “(B) Providing opportunities for freight
4 transportation staff to engage in peer exchange.

5 “(C) Refinement of data and analysis tools
6 used in conjunction with assessing freight
7 transportation needs.

8 “(D) Technical assistance to State trans-
9 portation departments and local transportation
10 agencies reorganizing to address freight trans-
11 portation issues.

12 “(E) Facilitating relationship building be-
13 tween governmental and private entities in-
14 volved in freight transportation.

15 “(F) Identifying ways to target the capac-
16 ity of State transportation departments and
17 local transportation agencies to address freight
18 considerations in operations, security, asset
19 management, and environmental excellence in
20 connection with long-range multimodal trans-
21 portation planning and project implementation.

22 “(5) FEDERAL SHARE.—The Federal share of
23 the cost of an activity carried out under this section
24 shall be up to 100 percent, and such funds shall re-
25 main available until expended.



1 “(6) USE OF FUNDS.—Funds made available
2 for the program established under this subsection
3 may be used for research, program development, in-
4 formation collection and dissemination, and technical
5 assistance. The Secretary may use such funds inde-
6 pendently or make grants or to and enter into con-
7 tracts and cooperative agreements with a Federal
8 agency, State agency, local agency, federally recog-
9 nized Indian tribal government or tribal consortium,
10 authority, association, nonprofit or for-profit cor-
11 poration, or institution of higher education, to carry
12 out the purposes of this subsection.”.

13 (2) FUNDING.—Of the amounts made available
14 under section 5101(a)(2) of this Act, \$875,000 for
15 each of fiscal years 2006 through 2009 shall be
16 available to carry out section 504(g) of such title.

17 (i) EISENHOWER TRANSPORTATION FELLOWSHIP
18 PROGRAM.—Of the amounts made available by section
19 5101(a)(2) of this Act, \$2,200,000 for each of fiscal years
20 2005 through 2009 shall be available to carry out section
21 504(c)(2) of such title.

22 **SEC. 5205. STATE PLANNING AND RESEARCH.**

23 Section 505 of title 23, United States Code, is
24 amended—



1 (1) in subsection (a) by adding at the end the
2 following—

3 “(7) The conduct of activities relating to the
4 planning of real-time monitoring elements.”; and

5 (2) in subsection (d) by striking “for the same”
6 and all that follows through the period and inserting
7 the following: “for the period described in section
8 118(b)(2).”.

9 **SEC. 5206. INTERNATIONAL HIGHWAY TRANSPORTATION**
10 **OUTREACH PROGRAM.**

11 (a) IN GENERAL.—Section 506 of title 23, United
12 States Code, is amended to read as follows:

13 **“§ 506. International highway transportation out-**
14 **reach program**

15 “(a) ESTABLISHMENT.—The Secretary may establish
16 an international highway transportation outreach
17 program—

18 “(1) to inform the United States highway com-
19 munity of technological innovations in foreign coun-
20 tries that could significantly improve highway trans-
21 portation in the United States;

22 “(2) to promote United States highway trans-
23 portation expertise, goods, and services in foreign
24 countries; and



1 “(3) to increase transfers of United States
2 highway transportation technology to foreign coun-
3 tries.

4 “(b) ACTIVITIES.—Activities carried out under the
5 program may include—

6 “(1) the development, monitoring, assessment,
7 and dissemination in the United States of informa-
8 tion about highway transportation innovations in
9 foreign countries that could significantly improve
10 highway transportation in the United States;

11 “(2) research, development, demonstration,
12 training, and other forms of technology transfer and
13 exchange;

14 “(3) the provision to foreign countries, through
15 participation in trade shows, seminars, expositions,
16 and other similar activities, of information relating
17 to the technical quality of United States highway
18 transportation goods and services;

19 “(4) the offering of technical services of the
20 Federal Highway Administration that cannot be
21 readily obtained from private sector firms in the
22 United States for incorporation into the proposals of
23 those firms undertaking highway transportation
24 projects outside the United States, if the costs of the



1 technical services will be recovered under the terms
2 of the project;

3 “(5) the conduct of studies to assess the need
4 for, or feasibility of, highway transportation im-
5 provements in foreign countries; and

6 “(6) the gathering and dissemination of infor-
7 mation on foreign transportation markets and indus-
8 tries.

9 “(c) COOPERATION.—The Secretary may carry out
10 this section in cooperation with any appropriate—

11 “(1) Federal, State, or local agency;

12 “(2) authority, association, institution, or orga-
13 nization;

14 “(3) for-profit or nonprofit corporation;

15 “(4) national or international entity;

16 “(5) foreign country; or

17 “(6) person.

18 “(d) FUNDS.—

19 “(1) CONTRIBUTIONS.—Funds available to
20 carry out this section shall include funds deposited
21 by any cooperating organization or person into a
22 special account of the Treasury established for this
23 purpose.

24 “(2) ELIGIBLE USES OF FUNDS.—The funds
25 deposited into the account, and other funds available



1 to carry out this section, shall be available to cover
2 the cost of any activity eligible under this section,
3 including the cost of—

4 “(A) promotional materials;

5 “(B) travel;

6 “(C) reception and representation ex-
7 penses; and

8 “(D) salaries and benefits.

9 “(3) REIMBURSEMENTS FOR SALARIES AND
10 BENEFITS.—Reimbursements for salaries and bene-
11 fits of Department employees providing services
12 under this section shall be credited to the account.

13 “(e) REPORT.—For each fiscal year, the Secretary
14 shall submit to the Committee on Environment and Public
15 Works of the Senate and the Committee on Transpor-
16 tation and Infrastructure of the House of Representatives
17 a report that describes the destinations and individual trip
18 costs of international travel conducted in carrying out ac-
19 tivities described in this section.”.

20 (b) FUNDING.—Of the amounts made available by
21 section 5101(a)(1) of this Act, \$300,000 for each of fiscal
22 years 2005 through 2009 shall be available to carry out
23 section 506 of such title.



1 **SEC. 5207. SURFACE TRANSPORTATION ENVIRONMENT AND**
2 **PLANNING COOPERATIVE RESEARCH PRO-**
3 **GRAM.**

4 (a) IN GENERAL.—Section 507 of title 23, United
5 States Code, is amended to read as follows:

6 **“§ 507. Surface transportation-environmental cooper-**
7 **ative research program**

8 “(a) IN GENERAL.—The Secretary shall establish
9 and carry out a surface transportation-environmental co-
10 operative research program.

11 “(b) CONTENTS.—The program carried out under
12 this section may include research—

13 “(1) to develop more accurate models for evalu-
14 ating transportation control measures and transpor-
15 tation system designs that are appropriate for use
16 by State and local governments (including metropoli-
17 tan planning organizations) in designing implemen-
18 tation plans to meet Federal, State, and local envi-
19 ronmental requirements;

20 “(2) to improve understanding of the factors
21 that contribute to the demand for transportation;

22 “(3) to develop indicators of economic, social,
23 and environmental performance of transportation
24 systems to facilitate analysis of potential alter-
25 natives;



1 “(4) to meet additional priorities as determined
2 by the Secretary in the strategic planning process
3 under section 508; and

4 “(5) to refine, through the conduct of work-
5 shops, symposia, and panels, and in consultation
6 with stakeholders (including the Department of En-
7 ergy, the Environmental Protection Agency, and
8 other appropriate Federal and State agencies and
9 associations) the scope and research emphases of the
10 program.

11 “(c) PROGRAM ADMINISTRATION.—The Secretary
12 shall—

13 “(1) administer the program established under
14 this section; and

15 “(2) ensure, to the maximum extent prac-
16 ticable, that—

17 “(A) the best projects and researchers are
18 selected to conduct research in the priority
19 areas described in subsection (b)—

20 “(i) on the basis of merit of each sub-
21 mitted proposal; and

22 “(ii) through the use of open solicita-
23 tions and selection by a panel of appro-
24 priate experts;



1 “(B) a qualified, permanent core staff with
2 the ability and expertise to manage a large
3 multiyear budget is used;

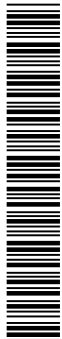
4 “(C) the stakeholders are involved in the
5 governance of the program, at the executive,
6 overall program, and technical levels, through
7 the use of expert panels and committees; and

8 “(D) there is no duplication of research ef-
9 fort between the program established under this
10 section and the new strategic highway research
11 program established under section 510.

12 “(d) NATIONAL ACADEMY OF SCIENCES.—The Sec-
13 retary may make grants to, and enter into cooperative
14 agreements with, the National Academy of Sciences to
15 carry out such activities relating to the research, tech-
16 nology, and technology transfer activities described in sub-
17 sections (b) and (c) as the Secretary determines to be ap-
18 propriate.”.

19 (b) FUNDING.—Of the amounts made available by
20 section 5101(a)(1) of this Act, \$16,875,000 for each of
21 fiscal years 2006 through 2009 shall be available to carry
22 out section 507 of such title.

23 (c) CONFORMING AMENDMENT.—The analysis for
24 chapter 5 of such title is amended by striking the item
25 relating to section 507 and inserting the following:



“507. Surface transportation environment and planning cooperative research program.”.

1 **SEC. 5208. TRANSPORTATION RESEARCH AND DEVELOP-**
2 **MENT STRATEGIC PLANNING.**

3 (a) IN GENERAL.—Section 508 of title 23, United
4 States Code, is amended to read as follows:

5 **“§ 508. Transportation research and development**
6 **strategic planning**

7 “(a) IN GENERAL.—

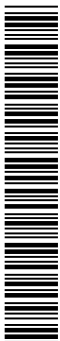
8 “(1) DEVELOPMENT.—Not later than 1 year
9 after the date of enactment of the SAFETEA-LU,
10 the Secretary shall develop a 5-year transportation
11 research and development strategic plan to guide
12 Federal transportation research and development ac-
13 tivities. This plan shall be consistent with section
14 306 of title 5, sections 1115 and 1116 of title 31,
15 and any other research and development plan within
16 the Department of Transportation.

17 “(2) CONTENTS.—The strategic plan developed
18 under paragraph (1) shall—

19 “(A) describe the primary purposes of the
20 transportation research and development pro-
21 gram, which shall include, at a minimum—

22 “(i) reducing congestion and improv-
23 ing mobility;

24 “(ii) promoting safety;



1 “(iii) promoting security;

2 “(iv) protecting and enhancing the en-
3 vironment;

4 “(v) preserving the existing transpor-
5 tation system; and

6 “(vi) improving the durability and ex-
7 tending the life of transportation infra-
8 structure;

9 “(B) for each purpose, list the primary re-
10 search and development topics that the Depart-
11 ment intends to pursue to accomplish that pur-
12 pose, which may include the fundamental re-
13 search in the physical and natural sciences, ap-
14 plied research, technology development, and so-
15 cial science research intended for each topic;
16 and

17 “(C) for each research and development
18 topic, describe—

19 “(i) the anticipated annual funding
20 levels for the period covered by the stra-
21 tegic plan; and

22 “(ii) the additional information the
23 Department expects to gain at the end of
24 the period covered by the strategic plan as



1 a result of the research and development in
2 that topic area.

3 “(3) CONSIDERATIONS.—In developing the stra-
4 tegic plan, the Secretary shall ensure that the
5 plan—

6 “(A) reflects input from a wide range of
7 stakeholders;

8 “(B) includes and integrates the research
9 and development programs of all the Depart-
10 ment’s operating administrations, including
11 aviation, transit, rail, and maritime; and

12 “(C) takes into account how research and
13 development by other Federal, State, private
14 sector, and nonprofit institutions contributes to
15 the achievement of the purposes identified
16 under paragraph (2)(A), and avoids unneces-
17 sary duplication with these efforts.

18 “(4) PERFORMANCE PLANS AND REPORTS.—In
19 reports submitted under sections 1115 and 1116 of
20 title 31, the Secretary shall include—

21 “(A) a summary of the Federal transpor-
22 tation research and development activities for
23 the previous fiscal year in each topic area;

24 “(B) the amount of funding spent in each
25 topic area;



1 “(C) a description of the extent to which
2 the research and development is meeting the ex-
3 pectations set forth in paragraph (2)(C)(ii); and

4 “(D) any amendments to the strategic
5 plan.

6 “(b) ANNUAL REPORT.—The Secretary shall submit
7 to appropriate committees of Congress an annual report,
8 in conjunction with the President’s annual budget request
9 as set forth in section 1105 of title 31, describing the
10 amount spent in the last completed fiscal year on trans-
11 portation research and development and the amount pro-
12 posed in the current budget for transportation research
13 and development.

14 “(c) NATIONAL RESEARCH COUNCIL REVIEW.—The
15 Secretary shall enter into an agreement for the review by
16 the National Research Council of the details of each—

17 “(1) strategic plan under this section;

18 “(2) performance plan required under section
19 1115 of title 31; and

20 “(3) program performance report required
21 under section 1116 of title 31, with respect to trans-
22 portation research and development.”.

23 (b) CONFORMING AMENDMENT.—The analysis for
24 chapter 5 of such title is amended by striking the item
25 relating to section 508 and inserting the following:

“508. Transportation research and development strategic planning.”.



1 **SEC. 5209. NATIONAL COOPERATIVE FREIGHT TRANSPOR-**
2 **TATION RESEARCH PROGRAM.**

3 (a) IN GENERAL.—Chapter 5 of title 23, United
4 States Code, is amended by adding at the end the fol-
5 lowing:

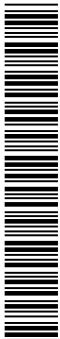
6 **“§ 509. National cooperative freight transportation**
7 **research program**

8 “(a) ESTABLISHMENT.—The Secretary shall estab-
9 lish and support a national cooperative freight transpor-
10 tation research program.

11 “(b) AGREEMENT.—The Secretary shall enter into an
12 agreement with the National Academy of Sciences to sup-
13 port and carry out administrative and management activi-
14 ties relating to the governance of the national cooperative
15 freight transportation research program.

16 “(c) ADVISORY COMMITTEE.—The National Acad-
17 emy of Sciences shall select an advisory committee con-
18 sisting of a representative cross-section of freight stake-
19 holders, including the Department of Transportation,
20 other Federal agencies, State transportation departments,
21 local governments, nonprofit entities, academia, and the
22 private sector.

23 “(d) GOVERNANCE.—The national cooperative
24 freight transportation research program established under
25 this section shall include the following administrative and
26 management elements:



1 “(1) NATIONAL RESEARCH AGENDA.—The advi-
2 sory committee, in consultation with interested par-
3 ties, shall recommend a national research agenda for
4 the program. The agenda shall include a multiyear
5 strategic plan.

6 “(2) INVOLVEMENT.—Interested parties may—

7 “(A) submit research proposals to the advi-
8 sory committee;

9 “(B) participate in merit reviews of re-
10 search proposals and peer reviews of research
11 products; and

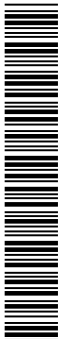
12 “(C) receive research results.

13 “(3) OPEN COMPETITION AND PEER REVIEW OF
14 RESEARCH PROPOSALS.—The National Academy of
15 Sciences may award research contracts and grants
16 under the program through open competition and
17 merit review conducted on a regular basis.

18 “(4) EVALUATION OF RESEARCH.—

19 “(A) PEER REVIEW.—Research contracts
20 and grants under the program may allow peer
21 review of the research results.

22 “(B) PROGRAMMATIC EVALUATIONS.—The
23 National Academy of Sciences may conduct
24 periodic programmatic evaluations on a regular
25 basis of research contracts and grants.



1 “(5) DISSEMINATION OF RESEARCH FIND-
2 INGS.—The National Academy of Sciences shall dis-
3 seminate research findings to researchers, practi-
4 tioners, and decisionmakers, through conferences
5 and seminars, field demonstrations, workshops,
6 training programs, presentations, testimony to gov-
7 ernment officials, the World Wide Web, publications
8 for the general public, and other appropriate means.

9 “(e) CONTENTS.—The national research agenda re-
10 quired under subsection (d)(1) shall include research in
11 the following areas:

12 “(1) Techniques for estimating and quantifying
13 public benefits derived from freight transportation
14 projects.

15 “(2) Alternative approaches to calculating the
16 contribution of truck and rail traffic to congestion
17 on specific highway segments.

18 “(3) The feasibility of consolidating origins and
19 destinations for freight movement.

20 “(4) Methods for incorporating estimates of
21 international trade into landside transportation plan-
22 ning.

23 “(5) The use of technology applications to in-
24 crease capacity of highway lanes dedicated to truck-
25 only traffic.



1 “(6) Development of physical and policy alter-
2 natives for separating car and truck traffic.

3 “(7) Ways to synchronize infrastructure im-
4 provements with freight transportation demand.

5 “(8) The effect of changing patterns of freight
6 movement on transportation planning decisions re-
7 lating to rest areas.

8 “(9) Other research areas to identify and ad-
9 dress emerging and future research needs related to
10 freight transportation by all modes.

11 “(f) FUNDING.—

12 “(1) FEDERAL SHARE.—The Federal share of
13 the cost of an activity carried out under this section
14 shall be up to 100 percent.

15 “(2) USE OF NON-FEDERAL FUNDS.—In addi-
16 tion to using funds authorized for this section, the
17 National Academy of Sciences may seek and accept
18 additional funding sources from public and private
19 entities capable of accepting funding from the De-
20 partment of Transportation, States, local govern-
21 ments, nonprofit foundations, and the private sector.

22 “(3) PERIOD OF AVAILABILITY.—Amounts
23 made available to carry out this section shall remain
24 available until expended.”.



1 (b) FUNDING.—Of the amounts made available by
2 section 5101(a)(1) of this Act, \$3,750,000 for each of fis-
3 cal years 2006 through 2009 shall be available to carry
4 out section 509 of such title.

5 (c) CONFORMING AMENDMENT.—The analysis for
6 such chapter is further amended by adding at the end the
7 following:

“509. National cooperative freight transportation research program.”.

8 **SEC. 5210. FUTURE STRATEGIC HIGHWAY RESEARCH PRO-**
9 **GRAM.**

10 (a) IN GENERAL.—Chapter 5 of title 23, United
11 States Code, is further amended by adding at the end the
12 following:

13 **“§ 510. Future strategic highway research program**

14 “(a) ESTABLISHMENT.—The Secretary, in consulta-
15 tion with the American Association of State Highway and
16 Transportation Officials, shall establish and carry out,
17 acting through the National Research Council of the Na-
18 tional Academy of Sciences, the future strategic highway
19 research program.

20 “(b) COOPERATIVE AGREEMENTS.—The Secretary
21 may make grants to, and enter into cooperative agree-
22 ments with, the American Association of State Highway
23 and Transportation Officials and the National Academy
24 of Sciences to carry out such activities under this section
25 as the Secretary determines are appropriate.



1 “(c) PROGRAM PRIORITIES.—

2 “(1) PROGRAM ELEMENTS.—The program es-
3 tablished under this section shall be based on the
4 National Research Council Special Report 260, enti-
5 tled ‘Strategic Highway Research: Saving Lives, Re-
6 ducing Congestion, Improving Quality of Life’ and
7 the results of the detailed planning work subse-
8 quently carried out in 2002 and 2003 to identify the
9 research areas through National Cooperative Re-
10 search Program Project 20–58. The research pro-
11 gram shall include an analysis of the following:

12 “(A) Renewal of aging highway infrastruc-
13 ture with minimal impact to users of the facili-
14 ties.

15 “(B) Driving behavior and likely crash
16 causal factors to support improved counter-
17 measures.

18 “(C) Reducing highway congestion due to
19 nonrecurring congestion.

20 “(D) Planning and designing new road ca-
21 pacity to meet mobility, economic, environ-
22 mental, and community needs.

23 “(2) DISSEMINATION OF RESULTS.—The re-
24 search results of the program, expressed in terms of
25 technologies, methodologies, and other appropriate



1 categorizations, shall be disseminated to practicing
2 engineers for their use, as soon as practicable.

3 “(d) PROGRAM ADMINISTRATION.—In carrying out
4 the program under this section, the National Research
5 Council shall ensure, to the maximum extent practicable,
6 that—

7 “(1) projects and researchers are selected to
8 conduct research for the program on the basis of
9 merit and open solicitation of proposals and review
10 by panels of appropriate experts;

11 “(2) State department of transportation offi-
12 cials and other stakeholders, as appropriate, are in-
13 volved in the governance of the program at the over-
14 all program level and technical level through the use
15 of expert panels and committees;

16 “(3) the Council acquires a qualified, perma-
17 nent core staff with the ability and expertise to man-
18 age the program and multiyear budget; and

19 “(4) there is no duplication of research effort
20 between the program and any other research effort
21 of the Department.

22 “(e) REPORT ON IMPLEMENTATION OF RESULTS.—

23 “(1) REPORT.—The Transportation Research
24 Board of the National Research Council shall com-
25 plete a report on the strategies and administrative



1 structure to be used for implementation of the re-
2 sults of the future strategic highway research pro-
3 gram.

4 “(2) COMPONENTS.—The report under para-
5 graph (1) shall include with respect to the
6 program—

7 “(A) an identification of the most prom-
8 ising results of research under the program (in-
9 cluding the persons most likely to use the re-
10 sults);

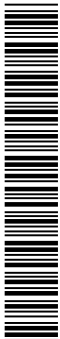
11 “(B) a discussion of potential incentives
12 for, impediments to, and methods of, imple-
13 menting those results;

14 “(C) an estimate of costs of implementa-
15 tion of those results; and

16 “(D) recommendations on methods by
17 which implementation of those results should be
18 conducted, coordinated, and supported in future
19 years, including a discussion of the administra-
20 tive structure and organization best suited to
21 carry out those recommendations.

22 “(3) CONSULTATION.—In developing the report,
23 the Transportation Research Board shall consult
24 with a wide variety of stakeholders, including—

25 “(A) the Federal Highway Administration;



1 “(B) the National Highway Traffic Safety
2 Administration; and

3 “(C) the American Association of State
4 Highway and Transportation Officials.

5 “(4) SUBMISSION.—Not later than February 1,
6 2009, the report shall be submitted to the Com-
7 mittee on Environment and Public Works of the
8 Senate and the Committee on Transportation and
9 Infrastructure of the House of Representatives.

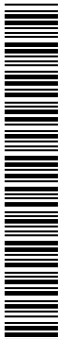
10 “(f) FUNDING.—

11 “(1) FEDERAL SHARE.—The Federal share of
12 the cost of an activity carried out using amounts
13 made available under a grant or cooperative agree-
14 ment under this section shall be 100 percent, and
15 such funds shall remain available until expended.

16 “(2) ADVANCE PAYMENTS.—The Secretary may
17 make advance payments as necessary to carry out
18 the program under this section.

19 “(g) LIMITATION OF REMEDIES.—

20 “(1) SAME REMEDY AS IF UNITED STATES.—
21 The remedy against the United States provided by
22 sections 1346(b) and 2672 of title 28 for injury, loss
23 of property, personal injury, or death shall apply to
24 any claim against the National Academy of Sciences
25 for money damages for injury, loss of property, per-



1 sonal injury, or death caused by any negligent or
2 wrongful act or omission by employees and individ-
3 uals described in paragraph (3) arising from activi-
4 ties conducted under or in connection with this sec-
5 tion. Any such claim shall be subject to the limita-
6 tions and exceptions which would be applicable to
7 such claim if such claim were against the United
8 States. With respect to any such claim, the Sec-
9 retary shall be treated as the head of the appro-
10 prium Federal agency for purposes of sections 2672
11 and 2675 of title 28.

12 “(2) EXCLUSIVENESS OF REMEDY.—The rem-
13 edy referred to in paragraph (1) shall be exclusive
14 of any other civil action or proceeding for the pur-
15 pose of determining liability arising from any such
16 act or omission without regard to when the act or
17 omission occurred.

18 “(3) TREATMENT.—Employees of the National
19 Academy of Sciences and other individuals appointed
20 by the president of the National Academy of
21 Sciences and acting on its behalf in connection with
22 activities carried out under this section shall be
23 treated as if they are employees of the Federal Gov-
24 ernment under section 2671 of title 28 for purposes
25 of a civil action or proceeding with respect to a claim



1 described in paragraph (1). The civil action or pro-
2 ceeding shall proceed in the same manner as any
3 proceeding under chapter 171 of title 28 or action
4 against the United States filed pursuant to section
5 1346(b) of title 28 and shall be subject to the limita-
6 tions and exceptions applicable to such a proceeding
7 or action.

8 “(4) SOURCES OF PAYMENTS.—Payment of any
9 award, compromise, or settlement of a civil action or
10 proceeding with respect to a claim described in para-
11 graph (1) shall be paid first out of insurance main-
12 tained by the National Academy of Sciences, second
13 from funds made available to carry out this section,
14 and then from sums made available under section
15 1304 of title 31. For purposes of such section, such
16 an award, compromise, or settlement shall be
17 deemed to be a judgment, award, or settlement pay-
18 able under section 2414 or 2672 of title 28. The
19 Secretary may establish a reserve of funds to carry
20 out this section for making payments under this
21 paragraph.”.

22 (b) PROGRAMMATIC EVALUATIONS.—Not later than
23 3 years after the first research and development project
24 grants, cooperative agreements, or contracts are awarded
25 under section 510 of title 23, United States Code, the



1 Comptroller General shall review the program under such
2 section and recommend improvements to the program.
3 The review shall assess the degree to which projects fund-
4 ed under such section have addressed the research and
5 development topics identified in the Transportation Re-
6 search Board Special Report 260, including identifying
7 those topics that have not yet been addressed.

8 (c) FUNDING.—Of the amounts made available by
9 section 5101(a)(1) of this Act, \$51,250,000 for each of
10 fiscal years 2006 through 2009, shall be available to carry
11 out section 510 of such title.

12 (d) CONFORMING AMENDMENT.—The analysis for
13 chapter 5 of such title is further amended by adding at
14 the end the following:

“510. Future strategic highway research program.”.

15 **SEC. 5211. MULTISTATE CORRIDOR OPERATIONS AND MAN-**
16 **AGEMENT.**

17 (a) IN GENERAL.—Chapter 5 of title 23, United
18 States Code, is further amended by adding at the end the
19 following:

20 **“§ 511. Multistate corridor operations and manage-**
21 **ment**

22 “(a) IN GENERAL.—The Secretary shall encourage
23 multistate cooperative agreements, coalitions, or other ar-
24 rangements to promote regional cooperation, planning,
25 and shared project implementation for programs and



1 projects to improve transportation system management
2 and operations.

3 “(b) INTERSTATE ROUTE 95 CORRIDOR COALITION
4 TRANSPORTATION SYSTEMS MANAGEMENT AND OPER-
5 ATIONS.—The Secretary shall make grants under this sub-
6 section to States to continue intelligent transportation sys-
7 tem management and operations in the Interstate Route
8 95 corridor coalition region initiated under the Intermodal
9 Surface Transportation Efficiency Act of 1991 (Public
10 Law 102–240).”.

11 (b) FUNDING.—Of the amounts made available under
12 section 5101(a)(5) of this Act \$7,000,000 for each of fis-
13 cal years 2005 through 2009 shall be available to carry
14 out section 511 of such title.

15 (c) CONFORMING AMENDMENT.—The analysis for
16 such chapter is further amended by adding at the end the
17 following:

“511. Multistate corridor operations and management.”.

18 **Subtitle C—Intelligent** 19 **Transportation System Research**

20 **SEC. 5301. NATIONAL ITS PROGRAM PLAN.**

21 (a) IN GENERAL.—Chapter 5 of title 23, United
22 States Code, is further amended by adding at the end the
23 following:

24 **“§ 512. National ITS program plan**

25 “(a) IN GENERAL.—



1 “(1) UPDATES.—Not later than 1 year after
2 the date of enactment of the SAFETEA-LU, the
3 Secretary, in consultation with interested stake-
4 holders (including State transportation departments)
5 shall develop a 5-year National Intelligent Transpor-
6 tation System (in this section referred to as ‘ITS’)
7 program plan.

8 “(2) SCOPE.—The National ITS program plan
9 shall—

10 “(A) specify the goals, objectives, and mile-
11 stones for the research and deployment of intel-
12 ligent transportation systems in the contexts
13 of—

14 “(i) major metropolitan areas;

15 “(ii) smaller metropolitan and rural
16 areas; and

17 “(iii) commercial vehicle operations;

18 “(B) specify the manner in which specific
19 programs and projects will achieve the goals,
20 objectives, and milestones referred to in sub-
21 paragraph (A), including consideration of a 5-
22 year timeframe for the goals and objectives;

23 “(C) identify activities that provide for the
24 dynamic development, testing, and necessary re-
25 vision of standards and protocols to promote



1 and ensure interoperability in the implementa-
2 tion of intelligent transportation system tech-
3 nologies, including actions taken to establish
4 standards; and

5 “(D) establish a cooperative process with
6 State and local governments for—

7 “(i) determining desired surface
8 transportation system performance levels;
9 and

10 “(ii) developing plans for accelerating
11 the incorporation of specific intelligent
12 transportation system capabilities into sur-
13 face transportation systems.

14 “(b) REPORTING.—The National ITS program plan
15 shall be submitted and biennially updated as part of the
16 transportation research and development strategic plan
17 developed under section 508.”.

18 (b) CONFORMING AMENDMENT.—The analysis for
19 such chapter is further amended by adding at the end the
20 following:

“512. National ITS Program Plan.”.

21 **SEC. 5302. USE OF FUNDS.**

22 (a) IN GENERAL.—Chapter 5 of title 23, United
23 States Code, is further amended by adding at the end the
24 following:



1 **“§ 513. Use of funds for ITS activities**

2 “(a) IN GENERAL.—For each fiscal year, not more
3 than \$250,000 of the funds made available to carry out
4 this subtitle C of title V of the SAFETEA–LU shall be
5 used for intelligent transportation system outreach, public
6 relations, displays, tours, and brochures.

7 “(b) APPLICABILITY.—Subsection (a) shall not apply
8 to intelligent transportation system training, scholarships,
9 or the publication or distribution of research findings,
10 technical guidance, or similar documents.”.

11 (b) CONFORMING AMENDMENT.—The analysis for
12 such chapter is further amended by adding at the end the
13 following:

 “513. Use of funds for ITS activities.”.

14 **SEC. 5303. GOALS AND PURPOSES.**

15 (a) GOALS.—The goals of the intelligent transpor-
16 tation system program include—

17 (1) enhancement of surface transportation effi-
18 ciency and facilitation of intermodalism and inter-
19 national trade to enable existing facilities to meet a
20 significant portion of future transportation needs,
21 including public access to employment, goods, and
22 services and to reduce regulatory, financial, and
23 other transaction costs to public agencies and sys-
24 tem users;



1 (2) achievement of national transportation safe-
2 ty goals, including the enhancement of safe oper-
3 ation of motor vehicles and nonmotorized vehicles
4 and improved emergency response to a crash, with
5 particular emphasis on decreasing the number and
6 severity of collisions;

7 (3) protection and enhancement of the natural
8 environment and communities affected by surface
9 transportation, with particular emphasis on assisting
10 State and local governments to achieve national en-
11 vironmental goals;

12 (4) accommodation of the needs of all users of
13 surface transportation systems, including operators
14 of commercial motor vehicles, passenger motor vehi-
15 cles, motorcycles, bicycles and pedestrians, including
16 individuals with disabilities; and

17 (5) improvement of the Nation's ability to re-
18 spond to security-related or other manmade emer-
19 gencies and natural disasters and enhancement of
20 national defense mobility.

21 (b) PURPOSES.—The Secretary shall implement ac-
22 tivities under the intelligent system transportation pro-
23 gram to, at a minimum—

24 (1) expedite, in both metropolitan and rural
25 areas, deployment and integration of intelligent



1 transportation systems for consumers of passenger
2 and freight transportation;

3 (2) ensure that Federal, State, and local trans-
4 portation officials have adequate knowledge of intel-
5 ligent transportation systems for consideration in
6 the transportation planning process;

7 (3) improve regional cooperation and operations
8 planning for effective intelligent transportation sys-
9 tem deployment;

10 (4) promote the innovative use of private re-
11 sources;

12 (5) facilitate, in cooperation with the motor ve-
13 hicle industry, the introduction of vehicle-based safe-
14 ty enhancing systems;

15 (6) support the application of intelligent trans-
16 portation systems that increase the safety and effi-
17 ciency of commercial motor vehicle operations;

18 (7) develop a workforce capable of developing,
19 operating, and maintaining intelligent transportation
20 systems; and

21 (8) provide continuing support for operations
22 and maintenance of intelligent transportation sys-
23 tems.



1 **SEC. 5304. INFRASTRUCTURE DEVELOPMENT.**

2 Funds made available to carry out this subtitle for
3 operational tests—

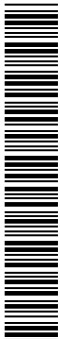
4 (1) shall be used primarily for the development
5 of intelligent transportation system infrastructure;
6 and

7 (2) to the maximum extent practicable, shall
8 not be used for the construction of physical highway
9 and public transportation infrastructure unless the
10 construction is incidental and critically necessary to
11 the implementation of an intelligent transportation
12 system project.

13 **SEC. 5305. GENERAL AUTHORITIES AND REQUIREMENTS.**

14 (a) SCOPE.—Subject to the provisions of this subtitle,
15 the Secretary shall conduct an ongoing intelligent trans-
16 portation system program to research, develop, and oper-
17 ationally test intelligent transportation systems and to
18 provide technical assistance in the nationwide application
19 of those systems as a component of the surface transpor-
20 tation systems of the United States.

21 (b) POLICY.—Intelligent transportation system re-
22 search projects and operational tests funded pursuant to
23 this subtitle shall encourage and not displace public-pri-
24 vate partnerships or private sector investment in such
25 tests and projects.



1 (c) COOPERATION WITH GOVERNMENTAL, PRIVATE,
2 AND EDUCATIONAL ENTITIES.—The Secretary shall carry
3 out the intelligent transportation system program in co-
4 operation with State and local governments and other pub-
5 lic entities, the private sector firms of the United States,
6 the Federal laboratories, and colleges and universities, in-
7 cluding historically Black colleges and universities and
8 other minority institutions of higher education.

9 (d) CONSULTATION WITH FEDERAL OFFICIALS.—In
10 carrying out the intelligent transportation system pro-
11 gram, the Secretary shall consult with the heads of other
12 Federal departments and agencies, as appropriate.

13 (e) TECHNICAL ASSISTANCE, TRAINING, AND INFOR-
14 MATION.—The Secretary may provide technical assistance,
15 training, and information to State and local governments
16 seeking to implement, operate, maintain, or evaluate intel-
17 ligent transportation system technologies and services.

18 (f) TRANSPORTATION PLANNING.—The Secretary
19 may provide funding to support adequate consideration of
20 transportation systems management and operations, in-
21 cluding intelligent transportation systems, within metro-
22 politan and statewide transportation planning processes.

23 (g) INFORMATION CLEARINGHOUSE.—

24 (1) IN GENERAL.—The Secretary shall—



1 (A) maintain a repository for technical and
2 safety data collected as a result of federally
3 sponsored projects carried out under this sub-
4 title (including the amendments made by this
5 subtitle); and

6 (B) make, on request, that information
7 (except for proprietary information and data)
8 readily available to all users of the repository at
9 an appropriate cost.

10 (2) AGREEMENT.—

11 (A) IN GENERAL.—The Secretary may
12 enter into an agreement with a third party for
13 the maintenance of the repository for technical
14 and safety data under paragraph (1)(A).

15 (B) FEDERAL FINANCIAL ASSISTANCE.—If
16 the Secretary enters into an agreement with an
17 entity for the maintenance of the repository, the
18 entity shall be eligible for Federal financial as-
19 sistance under this section.

20 (3) AVAILABILITY OF INFORMATION.—Informa-
21 tion in the repository shall not be subject to section
22 555 of title 5, United States Code.

23 (h) ADVISORY COMMITTEE.—



1 (1) IN GENERAL.—The Secretary shall establish
2 an Advisory Committee to advise the Secretary on
3 carrying out this subtitle.

4 (2) MEMBERSHIP.—The Advisory Committee
5 shall have no more than 20 members, be balanced
6 between metropolitan and rural interests, and in-
7 clude, at a minimum—

8 (A) a representative from a State highway
9 department;

10 (B) a representative from a local highway
11 department who is not from a metropolitan
12 planning organization;

13 (C) a representative from a State, local, or
14 regional transit agency;

15 (D) a representative from a metropolitan
16 planning organization;

17 (E) a private sector user of intelligent
18 transportation system technologies;

19 (F) an academic researcher with expertise
20 in computer science or another information
21 science field related to intelligent transportation
22 systems, and who is not an expert on transpor-
23 tation issues;

24 (G) an academic researcher who is a civil
25 engineer;



1 (H) an academic researcher who is a social
2 scientist with expertise in transportation issues;

3 (I) a representative from a nonprofit group
4 representing the intelligent transportation sys-
5 tem industry;

6 (J) a representative from a public interest
7 group concerned with safety;

8 (K) a representative from a public interest
9 group concerned with the impact of the trans-
10 portation system on land use and residential
11 patterns; and

12 (L) members with expertise in planning,
13 safety, and operations.

14 (3) DUTIES.—The Advisory Committee shall, at
15 a minimum, perform the following duties:

16 (A) Provide input into the development of
17 the Intelligent Transportation System aspects
18 of the strategic plan under section 508 of title
19 23, United States Code.

20 (B) Review, at least annually, areas of in-
21 telligent transportation systems research being
22 considered for funding by the Department, to
23 determine—

24 (i) whether these activities are likely
25 to advance either the state-of-the-practice



1 or state-of-the-art in intelligent transpor-
2 tation systems;

3 (ii) whether the intelligent transpor-
4 tation system technologies are likely to be
5 deployed by users, and, if not, to determine
6 the barriers to deployment; and

7 (iii) the appropriate roles for govern-
8 ment and the private sector in investing in
9 the research and technologies being consid-
10 ered.

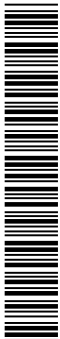
11 (4) REPORT.—Not later than February 1 of
12 each year after the date of enactment of this Act,
13 the Secretary shall transmit to the Congress a re-
14 port including—

15 (A) all recommendations made by the Ad-
16 visory Committee during the preceding calendar
17 year;

18 (B) an explanation of how the Secretary
19 has implemented those recommendations; and

20 (C) for recommendations not implemented,
21 the reasons for rejecting the recommendations.

22 (5) APPLICABILITY OF FEDERAL ADVISORY
23 COMMITTEE ACT.—The Advisory Committee shall be
24 subject to the Federal Advisory Committee Act (5
25 U.S.C. App.).



1 (i) REPORTING.—

2 (1) GUIDELINES AND REQUIREMENTS.—

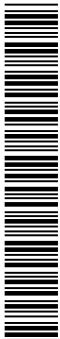
3 (A) IN GENERAL.—The Secretary shall
4 issue guidelines and requirements for the re-
5 porting and evaluation of operational tests and
6 deployment projects carried out under this sub-
7 title.

8 (B) OBJECTIVITY AND INDEPENDENCE.—

9 The guidelines and requirements issued under
10 subparagraph (A) shall include provisions to en-
11 sure the objectivity and independence of the re-
12 porting entity so as to avoid any real or appar-
13 ent conflict of interest or potential influence on
14 the outcome by parties to any such test or de-
15 ployment project or by any other formal evalua-
16 tion carried out under this subtitle.

17 (C) FUNDING.—The guidelines and re-
18 quirements issued under subparagraph (A) shall
19 establish reporting funding levels based on the
20 size and scope of each test or project that en-
21 sure adequate reporting of the results of the
22 test or project.

23 (2) SPECIAL RULE.—Any survey, questionnaire,
24 or interview that the Secretary considers necessary
25 to carry out the reporting of any test, deployment



1 project, or program assessment activity under this
2 subtitle shall not be subject to chapter 35 of title 44,
3 United States Code.

4 **SEC. 5306. RESEARCH AND DEVELOPMENT.**

5 (a) IN GENERAL.—The Secretary shall carry out a
6 comprehensive program of intelligent transportation sys-
7 tem research, development, and operational tests of intel-
8 ligent vehicles and intelligent infrastructure systems and
9 other similar activities that are necessary to carry out this
10 subtitle.

11 (b) PRIORITY AREAS.—Under the program, the Sec-
12 retary shall give higher priority to funding projects that—

13 (1) enhance mobility and productivity through
14 improved traffic management, incident management,
15 transit management, freight management, road
16 weather management, toll collection, traveler infor-
17 mation, or highway operations systems and remote
18 sensing products;

19 (2) utilize interdisciplinary approaches to de-
20 velop traffic management strategies and tools to ad-
21 dress multiple impacts of congestion concurrently;

22 (3) address traffic management, incident man-
23 agement, transit management, toll collection traveler
24 information, or highway operations systems with
25 goals of—



1 (A) reducing metropolitan congestion by
2 not less than 5 percent by 2010;

3 (B) ensuring that a national, interoperable
4 5-1-1 system, along with a national traffic in-
5 formation system that includes a user-friendly,
6 comprehensive website, is fully implemented for
7 use by travelers throughout the United States
8 by September 30, 2010; and

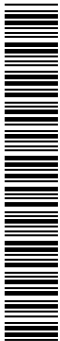
9 (C)(i) improving incident management re-
10 sponse, particularly in rural areas, so that rural
11 emergency response times are reduced by an av-
12 erage of 10 minutes; and

13 (ii) improving communication between
14 emergency care providers and trauma centers;

15 (4) incorporate research on the impact of envi-
16 ronmental, weather, and natural conditions on intel-
17 ligent transportation systems, including the effects
18 of cold climates;

19 (5) enhance intermodal use of intelligent trans-
20 portation systems for diverse groups, including for
21 emergency and health-related services;

22 (6) enhance safety through improved crash
23 avoidance and protection, crash and other notifica-
24 tion, commercial motor vehicle operations, and infra-
25 structure-based or cooperative safety systems; and



1 (7) facilitate the integration of intelligent infra-
2 structure, vehicle, and control technologies.

3 (c) FEDERAL SHARE.—The Federal share of the cost
4 of operational tests and demonstrations under subsection
5 (a) shall not exceed 80.

6 **SEC. 5307. NATIONAL ARCHITECTURE AND STANDARDS.**

7 (a) IN GENERAL.—

8 (1) DEVELOPMENT, IMPLEMENTATION, AND
9 MAINTENANCE.—Consistent with section 12(d) of
10 the National Technology Transfer and Advancement
11 Act of 1995 (15 U.S.C. 272 note; 110 Stat. 783),
12 the Secretary shall develop, implement, and maintain
13 a national architecture and supporting standards
14 and protocols to promote the widespread use and
15 evaluation of intelligent transportation system tech-
16 nology as a component of the surface transportation
17 systems of the United States.

18 (2) INTEROPERABILITY AND EFFICIENCY.—To
19 the maximum extent practicable, the national archi-
20 tecture shall promote interoperability among, and ef-
21 ficiency of, intelligent transportation system tech-
22 nologies implemented throughout the United States.

23 (3) USE OF STANDARDS DEVELOPMENT ORGA-
24 NIZATIONS.—In carrying out this section, the Sec-
25 retary shall use the services of such standards devel-



1 opment organizations as the Secretary determines to
2 be appropriate.

3 (4) USE OF EXPERT PANEL.—

4 (A) DESIGNATION.—The Secretary shall
5 designate a panel of experts to recommend ways
6 to expedite and streamline the process for de-
7 veloping the standards and protocols to be de-
8 veloped pursuant to paragraph (1).

9 (B) NONAPPLICABILITY OF ADVISORY COM-
10 MITTEE ACT.—The expert panel shall not be
11 subject to the Federal Advisory Committee Act
12 (5 U.S.C. App.).

13 (C) DEADLINE FOR RECOMMENDATION.—
14 Not later than September 30, 2007, the expert
15 panel shall provide the Secretary with a rec-
16 ommendation relating to such standards devel-
17 opment.

18 (b) PROVISIONAL STANDARDS.—

19 (1) IN GENERAL.—If the Secretary finds that
20 the development or balloting of an intelligent trans-
21 portation system standard jeopardizes the timely
22 achievement of the objectives identified in subsection
23 (a), the Secretary may establish a provisional stand-
24 ard, after consultation with affected parties, using,



1 to the extent practicable, the work product of appro-
2 priate standards development organizations.

3 (2) PERIOD OF EFFECTIVENESS.—A provisional
4 standard established under paragraph (1) shall be
5 published in the Federal Register and remain in ef-
6 fect until the appropriate standards development or-
7 ganization adopts and publishes a standard.

8 (c) CONFORMITY WITH NATIONAL ARCHITEC-
9 TURE.—

10 (1) IN GENERAL.—Except as provided in para-
11 graphs (2) and (3), the Secretary shall ensure that
12 intelligent transportation system projects carried out
13 using funds made available from the Highway Trust
14 Fund, including funds made available under this
15 subtitle to deploy intelligent transportation system
16 technologies, conform to the national architecture,
17 applicable standards or provisional standards, and
18 protocols developed under subsection (a).

19 (2) SECRETARY'S DISCRETION.—The Secretary
20 may authorize exceptions to paragraph (1) for—

21 (A) projects designed to achieve specific re-
22 search objectives outlined in the national intel-
23 ligent transportation system program plan or
24 the surface transportation research and devel-



1 opment strategic plan developed under section
2 508 of title 23, United States Code; or

3 (B) the upgrade or expansion of an intel-
4 ligent transportation system in existence on the
5 date of enactment of this Act if the Secretary
6 determines that the upgrade or expansion—

7 (i) would not adversely affect the
8 goals or purposes of this subtitle;

9 (ii) is carried out before the end of
10 the useful life of such system; and

11 (iii) is cost-effective as compared to
12 alternatives that would meet the con-
13 formity requirement of paragraph (1).

14 (3) EXCEPTIONS.—Paragraph (1) shall not
15 apply to funds used for operation or maintenance of
16 an intelligent transportation system in existence on
17 the date of enactment of this Act.

18 **SEC. 5308. ROAD WEATHER RESEARCH AND DEVELOPMENT**
19 **PROGRAM.**

20 (a) ESTABLISHMENT.—The Secretary shall establish
21 a road weather research and development program to—

22 (1) maximize use of available road weather in-
23 formation and technologies;

24 (2) expand road weather research and develop-
25 ment efforts to enhance roadway safety, capacity,



1 and efficiency while minimizing environmental im-
2 pacts; and

3 (3) promote technology transfer of effective
4 road weather scientific and technological advances.

5 (b) STAKEHOLDER INPUT.—In carrying out this sec-
6 tion, the Secretary shall consult with the National Oceanic
7 and Atmospheric Administration, the National Science
8 Foundation, the American Association of State Highway
9 and Transportation Officials, nonprofit organizations, and
10 the private sector.

11 (c) CONTENTS.—The program established under this
12 section shall solely carry out research and development
13 called for in the National Research Council's report enti-
14 tled "A Research Agenda for Improving Road Weather
15 Services". Such research and development includes—

16 (1) integrating existing observational networks
17 and data management systems for road weather ap-
18 plications;

19 (2) improving weather modeling capabilities and
20 forecast tools, such as the road surface and atmos-
21 pheric interface;

22 (3) enhancing mechanisms for communicating
23 road weather information to users, such as transpor-
24 tation officials and the public; and



1 (4) integrating road weather technologies into
2 an information infrastructure.

3 (d) ACTIVITIES.—In carrying out this section, the
4 Secretary shall—

5 (1) enable efficient technology transfer;

6 (2) improve education and training of road
7 weather information users, such as State and local
8 transportation officials and private sector transpor-
9 tation contractors; and

10 (3) coordinate with transportation weather re-
11 search programs in other modes, such as aviation.

12 (e) FUNDING.—

13 (1) IN GENERAL.—In awarding funds under
14 this section, the Secretary shall give preference to
15 applications with significant matching funds from
16 non-Federal sources.

17 (2) FUNDS FOR ROAD WEATHER RESEARCH
18 AND DEVELOPMENT.—Of the amounts made avail-
19 able by section 5101(a)(5) of this Act, \$5,000,000
20 for each of fiscal years 2006 through 2009 shall be
21 available to carry out this section.

22 **SEC. 5309. CENTERS FOR SURFACE TRANSPORTATION EX-**
23 **CELLENCE.**

24 (a) ESTABLISHMENT.—The Secretary shall establish
25 4 centers for surface transportation excellence.



1 (b) GOALS.—The goals of the centers for surface
2 transportation excellence are to promote and support stra-
3 tegic national surface transportation programs and activi-
4 ties relating to the work of State departments of transpor-
5 tation in the areas of environment, surface transportation
6 safety, rural safety, and project finance.

7 (c) ROLE OF CENTERS.—To achieve the goals set
8 forth in subsection (b), the Secretary shall establish the
9 4 centers as follows:

10 (1) ENVIRONMENTAL EXCELLENCE.—To pro-
11 vide technical assistance, information sharing of best
12 practices, and training in the use of tools and deci-
13 sion-making processes that can assist States in plan-
14 ning and delivering environmentally sound surface
15 transportation projects.

16 (2) SURFACE TRANSPORTATION SAFETY.—To
17 develop and disseminate advanced transportation
18 safety techniques and innovations in both rural
19 areas and urban communities. The center will use a
20 controlled access highway with state of the art fea-
21 tures, to test safety devices and techniques that en-
22 hance driver performance, examine advanced pave-
23 ment and lighting systems, and develop techniques
24 to address older driver and fatigue driver issues.



1 (3) RURAL SAFETY.—To provide research,
2 training, and outreach on innovative uses of tech-
3 nology to enhance rural safety and economic devel-
4 opment, assess local community needs to improve ac-
5 cess to mobile emergency treatment, and develop on-
6 line and seminar training needs of rural transpor-
7 tation practitioners and policy-makers.

8 (4) PROJECT FINANCE.—To provide support to
9 State transportation departments in the development
10 of finance plans and project oversight tools and to
11 develop and offer training in state of the art financ-
12 ing methods to advance projects and leverage funds.

13 (d) FUNDING.—

14 (1) IN GENERAL.—Of the amounts made avail-
15 able by section 5101(a)(1) of this Act, \$3,750,000
16 for each of fiscal years 2006 through 2009 shall be
17 available to carry out this section.

18 (2) ALLOCATION OF FUNDS.—Of the funds
19 made available under paragraph (1) the Secretary
20 shall use such amounts as follows:

21 (A) \$1,250,000 to establish the Center for
22 Environmental Excellence.

23 (B) \$750,000 to establish the Center for
24 Excellence in Surface Transportation Safety at
25 the Virginia Tech Transportation Institute.



1 (C) \$875,000 to establish the Center for
2 Excellence in Rural Safety at the Hubert H.
3 Humphrey Institute, Minnesota.

4 (D) \$875,000 to establish the Center for
5 Excellence in Project Finance.

6 (3) APPLICABILITY OF TITLE 23.—Funds au-
7 thorized by this section shall be available for obliga-
8 tion in the same manner as if such funds were ap-
9 portioned under chapter 1 of title 23, United States
10 Code, except that the Federal share shall be 100
11 percent.

12 (e) PROGRAM ADMINISTRATION.—

13 (1) COMPETITION.—A party entering into a
14 contract, cooperative agreement, or other transaction
15 with the Secretary, or receiving a grant to perform
16 research or provide technical assistance under sub-
17 sections (d)(2)(A) and (d)(2)(D) shall be selected on
18 a competitive basis, to the maximum extent prac-
19 ticable.

20 (2) STRATEGIC PLAN.—The Secretary shall re-
21 quire each center to develop a multiyear strategic
22 plan that describes—

23 (A) the activities to be undertaken; and

24 (B) how the work of the center is coordi-
25 nated with the activities of the Federal High-



1 way Administration and the various other re-
2 search, development, and technology transfer
3 activities authorized by this title. Such plans
4 shall be submitted to the Secretary by January
5 1, 2006, and each year thereafter.

6 **SEC. 5310. DEFINITIONS.**

7 In this subtitle, the following definitions apply:

8 (1) INCIDENT.—The term “incident” means a
9 crash, a natural disaster, workzone activity, special
10 event, or other emergency road user occurrence that
11 adversely affects or impedes the normal flow of traf-
12 fic.

13 (2) INTELLIGENT TRANSPORTATION INFRA-
14 STRUCTURE.—The term “intelligent transportation
15 infrastructure” means fully integrated public sector
16 intelligent transportation system components, as de-
17 fined by the Secretary.

18 (3) INTELLIGENT TRANSPORTATION SYSTEM.—
19 The term “intelligent transportation system” means
20 electronics, photonics, communications, or informa-
21 tion processing used singly or in combination to im-
22 prove the efficiency or safety of a surface transpor-
23 tation system.



1 (4) NATIONAL ARCHITECTURE.—The term “na-
2 tional architecture” means the common framework
3 for interoperability that defines—

4 (A) the functions associated with intel-
5 ligent transportation system user services;

6 (B) the physical entities or subsystems
7 within which the functions reside;

8 (C) the data interfaces and information
9 flows between physical subsystems; and

10 (D) the communications requirements as-
11 sociated with the information flows.

12 (5) PROJECT.—The term “project” means an
13 undertaking to research, develop, or operationally
14 test intelligent transportation systems or any other
15 undertaking eligible for assistance under this sub-
16 title.

17 (6) STANDARD.—The term “standard” means a
18 document that—

19 (A) contains technical specifications or
20 other precise criteria for intelligent transpor-
21 tation systems that are to be used consistently
22 as rules, guidelines, or definitions of character-
23 istics so as to ensure that materials, products,
24 processes, and services are fit for their pur-
25 poses; and



1 (B) may support the national architecture
2 and promote—

3 (i) the widespread use and adoption of
4 intelligent transportation system tech-
5 nology as a component of the surface
6 transportation systems of the United
7 States; and
8 (ii) interoperability among intelligent
9 transportation system technologies imple-
10 mented throughout the States.

11 (7) STATE.—The term “State” has the mean-
12 ing given the term under section 101 of title 23,
13 United States Code.

14 (8) TRANSPORTATION SYSTEMS MANAGEMENT
15 AND OPERATIONS.—The term “transportation sys-
16 tems management and operations” has the meaning
17 given the term under section 101(a) of title 23,
18 United States Code.

19 **Subtitle D—University Transpor-**
20 **tation Research; Scholarship**
21 **Opportunities**

22 **SEC. 5401. NATIONAL UNIVERSITY TRANSPORTATION CEN-**
23 **TERS.**

24 (a) IN GENERAL.—Section 5505 of title 49, United
25 States Code, is amended to read as follows:



1 **“SEC. 5505. NATIONAL UNIVERSITY TRANSPORTATION CEN-**
2 **TERS.**

3 “(a) IN GENERAL.—

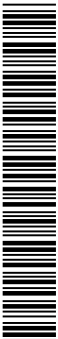
4 “(1) ESTABLISHMENT AND OPERATION.—The
5 Secretary of Transportation shall make grants under
6 this section to eligible nonprofit institutions of high-
7 er learning to establish and operate national univer-
8 sity transportation centers.

9 “(2) ROLE OF CENTERS.—The role of each cen-
10 ter shall be to advance significant transportation re-
11 search on critical national transportation issues and
12 to expand the workforce of transportation profes-
13 sionals.

14 “(b) APPLICABILITY OF REQUIREMENTS.—A grant
15 received by an eligible nonprofit institution of higher
16 learning under this section shall be available for the same
17 purposes, and shall be subject to the same terms and con-
18 ditions, as a grant made to a nonprofit institution of high-
19 er learning under section 5506.

20 “(c) ELIGIBLE NONPROFIT INSTITUTION OF HIGHER
21 LEARNING DEFINED.—In this section, the term ‘eligible
22 nonprofit institution of higher learning’ means each of the
23 following:

24 “(1) University of Alaska.



1 “(2) Marshall University, West Virginia, on be-
2 half of a consortium of West Virginia colleges and
3 universities.

4 “(3) University of Minnesota.

5 “(4) University of Missouri, Rolla.

6 “(5) Northwestern University.

7 “(6) Oklahoma Transportation Center.

8 “(7) Portland State University, in partnership
9 with the University of Oregon, Oregon State Univer-
10 sity, and the Oregon Institute of Technology.

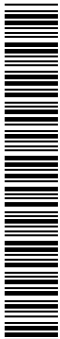
11 “(8) University of Vermont.

12 “(9) Western Transportation Institute at Mon-
13 tana State University.

14 “(10) University of Wisconsin.

15 “(d) GRANTS.—The Secretary shall make a grant
16 under this section to each eligible nonprofit institution of
17 higher learning in an amount \$2,000,000 in fiscal year
18 2005 and \$3,500,000 in each of fiscal years 2006 through
19 2009 to carry out this section.”.

20 (b) FUNDING.—Of the amounts made available by
21 section 5101(a)(4) of this Act, \$20,000,000 for fiscal year
22 2005 and \$35,000,000 for each of fiscal years 2006
23 through 2009 shall be available to carry out section 5505
24 of such title.



1 (c) CONFORMING AMENDMENT.—The analysis for
2 subchapter I of chapter 55 of such title is amended by
3 striking the item relating to section 5505 and inserting
4 the following:

“5505. National university transportation centers.”.

5 **SEC. 5402. UNIVERSITY TRANSPORTATION RESEARCH.**

6 (a) IN GENERAL.—Section 5506 of title 49, United
7 States Code, is amended to read as follows:

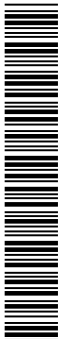
8 **“SEC. 5506. UNIVERSITY TRANSPORTATION RESEARCH.**

9 “(a) IN GENERAL.—The Secretary of Transportation
10 shall make grants under this section to nonprofit institu-
11 tions of higher learning to establish and operate university
12 transportation centers.

13 “(b) OBJECTIVES.—Grants received under this sec-
14 tion shall be used by nonprofit institutions of higher learn-
15 ing to advance significantly the state-of-the-art in trans-
16 portation research and expand the workforce of transpor-
17 tation professionals through the following programs and
18 activities:

19 “(1) RESEARCH.—Basic and applied research,
20 the products of which are judged by peers or other
21 experts in the field of transportation to advance the
22 body of knowledge in transportation.

23 “(2) EDUCATION.—An education program re-
24 lating to transportation that includes multidisci-
25 plinary course work and participation in research.



1 “(3) TECHNOLOGY TRANSFER.—An ongoing
2 program of technology transfer that makes transpor-
3 tation research results available to potential users in
4 a form that can be implemented, utilized, or other-
5 wise applied.

6 “(c) REGIONAL, TIER I, AND TIER II CENTERS.—

7 “(1) REGIONAL AND TIER I CENTERS.—For
8 each of fiscal years 2005 through 2009, the Sec-
9 retary shall make grants under subsection (a) to
10 nonprofit institutions of higher learning to establish
11 and operate—

12 “(A) 10 regional university transportation
13 centers; and

14 “(B) 10 Tier I university transportation
15 centers.

16 “(2) TIER II CENTERS.—

17 “(A) For each of fiscal years 2006 through
18 2009, the Secretary shall make grants under
19 subsection (a) to nonprofit institutions of high-
20 er learning to establish and operate 22 Tier II
21 university transportation centers.

22 “(B) The tier II centers consist of the fol-
23 lowing:

24 “(i) University of Arkansas, Mack-
25 Blackwell Rural Transportation Center.



1 “(ii) University of California, Davis.

2 “(iii) California State University, San
3 Bernardino.

4 “(iv) Cleveland State University,
5 Work Zone Safety Institute.

6 “(v) University of Connecticut.

7 “(vi) University of Delaware in New-
8 ark.

9 “(vii) University of Detroit Mercy (in-
10 cluding the coalition partners of the uni-
11 versity).

12 “(viii) George Mason University.

13 “(ix) Hampton University, Eastern
14 Seaboard Intermodal Transportation Ap-
15 plications Center (ESITAC).

16 “(x) Kansas State University.

17 “(xi) Louisiana State University,
18 LTRC-TTEC.

19 “(xii) University of Massachusetts
20 Amherst.

21 “(xiii) Michigan Technological Univer-
22 sity.

23 “(xiv) University of Nevada Las
24 Vegas.



1 “(xv) North Carolina State Univer-
2 sity, Center for Transportation and the
3 Environment.

4 “(xvi) Northwestern University.

5 “(xvii) Ohio Higher Education Trans-
6 portation Consortium—University of Akron.

7 “(xviii) University of Rhode Island.

8 “(xix) University of Toledo.

9 “(xx) Utah State University.

10 “(xxi) Youngstown State University.

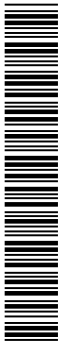
11 “(xxii) University of Memphis.

12 “(3) LOCATION OF REGIONAL CENTERS.—One
13 regional university transportation center shall be lo-
14 cated in each of the 10 United States Government
15 regions that comprise the Standard Federal Re-
16 gional Boundary System.

17 “(4) LIMITATION.—A nonprofit institution of
18 higher learning may not directly receive a grant
19 under this section for a fiscal year for more than
20 one university transportation center.

21 “(d) COMPETITIVE SELECTION PROCESS.—

22 “(1) APPLICATIONS.—In order to be eligible to
23 receive a grant under subsection (c)(1), a nonprofit
24 institution of higher learning shall submit to the
25 Secretary an application that is in such form and



1 contains such information as the Secretary may re-
2 quire.

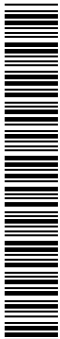
3 “(2) GENERAL SELECTION CRITERIA.—Except
4 as otherwise provided by this section, the Secretary
5 shall select each recipient of a grant under sub-
6 section (c)(1) through a competitive process on the
7 basis of the following:

8 “(A) The demonstrated research and ex-
9 tension resources available to the recipient to
10 carry out this section.

11 “(B) The capability of the recipient to pro-
12 vide leadership in making national and regional
13 contributions to the solution of immediate and
14 long-range transportation problems.

15 “(C) The recipient’s demonstrated commit-
16 ment of at least \$400,000 each year in regu-
17 larly budgeted institutional amounts to support
18 ongoing transportation research and education
19 programs.

20 “(D) The recipient’s demonstrated ability
21 to disseminate results of transportation re-
22 search and education programs through a state-
23 wide or regionwide continuing education pro-
24 gram.



1 “(E) The strategic plan the recipient pro-
2 poses to carry out under the grant.

3 “(e) REGIONAL UNIVERSITY TRANSPORTATION CEN-
4 TERS.—

5 “(1) COMPETITION.—Not later than March 31,
6 2006, and not later than March 31st of every 4th
7 year thereafter, the Secretary shall complete a com-
8 petition among nonprofit institutions of higher
9 learning for grants to establish and operate the 10
10 regional university transportation centers referred to
11 in subsection (c)(1)(A).

12 “(2) SELECTION CRITERIA.—In conducting a
13 competition under paragraph (1), the Secretary shall
14 select a nonprofit institution of higher learning on
15 the basis of—

16 “(A) the criteria described in subsection
17 (d)(2);

18 “(B) the location of the center within the
19 Federal region to be served; and

20 “(C) whether or not the institution (or, in
21 the case of a consortium of institutions, the
22 lead institution) demonstrates that it has a
23 well-established, nationally recognized program
24 in transportation research and education, as
25 evidenced by—

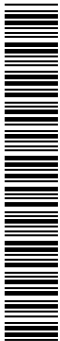


1 “(i) not less than \$2,000,000 in high-
2 way or public transportation research ex-
3 penditures each year for each of the pre-
4 ceding 5 years;

5 “(ii) not less than 10 graduate de-
6 grees awarded in professional fields closely
7 related to highways and public transpor-
8 tation each year for each of the preceding
9 5 years; and

10 “(iii) not less than 5 tenured or ten-
11 ure-track faculty members who specialize
12 on a full-time basis in professional fields
13 closely related to highways and public
14 transportation who, as a group, have pub-
15 lished a total at least 50 refereed journal
16 publications on highway or public transpor-
17 tation research during the preceding 5
18 years.

19 “(3) GRANT RECIPIENTS.—After selecting a
20 nonprofit institution of higher learning as a grant
21 recipient on the basis of a competition conducted
22 under this subsection, the Secretary shall make a
23 grant to the recipient to establish and operate a re-
24 gional university transportation center in each of the



1 first 4 fiscal years beginning after the date of the
2 competition.

3 “(4) SPECIAL RULE FOR FISCAL YEARS 2005
4 AND 2006.—For fiscal years 2005 and 2006, the Sec-
5 retary shall make a grant under this section to each
6 of the 10 nonprofit institutions of higher learning
7 that were competitively selected for grants by the
8 Secretary under this section in July 1999 to operate
9 regional university transportation centers.

10 “(5) AMOUNT OF GRANTS.—The Secretary shall
11 make a grant to a nonprofit institution of higher
12 learning to establish and operate a regional univer-
13 sity transportation center of—

14 “(A) \$1,000,000 for fiscal year 2005;

15 “(B) \$2,000,000 for each of fiscal years
16 2006 through 2008; and

17 “(C) \$2,225,000 for fiscal year 2009.

18 “(f) TIER I UNIVERSITY TRANSPORTATION CEN-
19 TERS.—

20 “(1) COMPETITION.—Not later than June 30,
21 2006, and not later than June 30 of every 4th year
22 thereafter, the Secretary shall complete a competi-
23 tion among nonprofit institutions of higher learning
24 for grants to establish and operate the 10 Tier I



1 university transportation centers referred to in sub-
2 section (c)(1)(B).

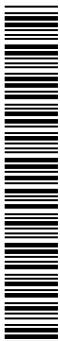
3 “(2) SELECTION CRITERIA.—In conducting a
4 competition under paragraph (1), the Secretary shall
5 select a nonprofit institution of higher learning on
6 the basis of—

7 “(A) the criteria described in subsection
8 (d)(2); and

9 “(B) whether or not the institution (or, in
10 the case of a consortium of institutions, the
11 lead institution) can demonstrate that it has an
12 established, recognized program in transpor-
13 tation research and education, as evidenced
14 by—

15 “(i) not less than \$1,000,000 in high-
16 way or public transportation research ex-
17 penditures each year for each of the pre-
18 ceding 5 years or not less than \$6,000,000
19 in such expenditures during the 5 pre-
20 ceding years;

21 “(ii) not less than 5 graduate degrees
22 awarded in professional fields closely re-
23 lated to highways and public transpor-
24 tation each year for each of the preceding
25 5 years; and



1 “(iii) not less than 3 tenured or ten-
2 ure-track faculty members who specialize
3 on a full-time basis in professional fields
4 closely related to highways and public
5 transportation who, as a group, have pub-
6 lished a total at least 20 refereed journal
7 publications on highway or public transpor-
8 tation research during the preceding 5
9 years.

10 “(3) GRANT RECIPIENTS.—After selecting a
11 nonprofit institution of higher learning as a grant
12 recipient on the basis of a competition conducted
13 under this subsection, the Secretary shall make a
14 grant to the recipient to establish and operate a Tier
15 I university transportation center in each of the first
16 4 fiscal years beginning after the date of the com-
17 petition.

18 “(4) SPECIAL RULE FOR FISCAL YEARS 2005
19 AND 2006.—For fiscal years 2005 and 2006, the Sec-
20 retary shall make a grant under this section to each
21 of the 10 nonprofit institutions of higher learning
22 that were competitively selected for grant awards by
23 the Secretary under this section in May 2002 to op-
24 erate university transportation centers (other than
25 regional centers).



1 “(5) AMOUNT OF GRANTS.—The Secretary shall
2 make a grant of \$1,000,000 for each of fiscal years
3 2005 through 2009 to a nonprofit institution of
4 higher learning to establish and operate a Tier I
5 university transportation center.

6 “(g) TIER II UNIVERSITY TRANSPORTATION CEN-
7 TERS.—

8 “(1) SELECTION.—The Secretary shall make
9 grants to the nonprofit institutions of higher learn-
10 ing to establish and operate the 22 Tier II university
11 transportation centers referred to in subsection
12 (c)(2)(B).

13 “(2) AMOUNT OF GRANTS.—The Secretary shall
14 make a grant of \$500,000 for each of fiscal years
15 2006 through 2009 to a nonprofit institution of
16 higher learning to establish and operate a Tier II
17 university transportation center.

18 “(h) SUPPORT OF NATIONAL STRATEGY FOR SUR-
19 FACE TRANSPORTATION RESEARCH.—In order to be eligi-
20 ble to receive a grant under this section, a nonprofit insti-
21 tution of higher learning shall provide assurances satisfac-
22 tory to the Secretary that the research and education ac-
23 tivities of its university transportation center will support
24 the national strategy for surface transportation research,
25 as identified by—



1 “(1) the report of the National Highway Re-
2 search and Technology Partnership entitled ‘High-
3 way Research and Technology: The Need for Great-
4 er Investment’, dated April 2002; and

5 “(2) the programs of the National Research
6 and Technology Program of the Federal Transit Ad-
7 ministration.

8 “(i) MAINTENANCE OF EFFORT.—In order to be eli-
9 gible to receive a grant under this section, a nonprofit in-
10 stitution of higher learning shall enter into an agreement
11 with the Secretary to ensure that the institution will main-
12 tain total expenditures from all other sources to establish
13 and operate a university transportation center and related
14 research activities at a level at least equal to the average
15 level of such expenditures in its 2 fiscal years prior to
16 award of a grant under this section.

17 “(j) FEDERAL SHARE.—The Federal share of the
18 costs of activities carried out using a grant made under
19 this section shall be 50 percent of such costs. The non-
20 Federal share may include funds provided to a recipient
21 under section 503, 504(b), or 505 of title 23.

22 “(k) PROGRAM COORDINATION.—

23 “(1) COORDINATION.—The Secretary shall co-
24 ordinate the research, education, and technology
25 transfer activities that grant recipients carry out



1 under this section, disseminate the results of the re-
2 search, and establish and operate a clearinghouse to
3 disseminate the results of the research.

4 “(2) ANNUAL REVIEW AND EVALUATION.—At
5 least annually, and consistent with the plan devel-
6 oped under section 508 of title 23, the Secretary
7 shall review and evaluate programs of grant recipi-
8 ents.

9 “(3) MANAGEMENT AND OVERSIGHT.—The Sec-
10 retary shall expend not more than \$400,000 for each
11 of fiscal years 2005 through 2009 from amounts
12 made available to carry out this section to carry out
13 management and oversight of the centers receiving
14 assistance under this section and section 5505.

15 “(l) PROGRAM ADMINISTRATION.—The Secretary
16 shall carry out this section acting through the Adminis-
17 trator of the Research and Innovative Technology Admin-
18 istration.

19 “(m) LIMITATION ON AVAILABILITY OF FUNDS.—
20 Funds made available to carry out this section shall re-
21 main available for obligation by the Secretary for a period
22 of 2 years after the last day of the fiscal year for which
23 such funds are authorized.”.



1 (b) FUNDING.—Of the amounts made available by
2 section 5101(a)(4) of this Act, the following amounts shall
3 be available to carry out section 5506 of such title.

4 (1) \$20,400,000 for fiscal year 2005.

5 (2) \$41,400,000 for each of fiscal years 2006
6 through 2008.

7 (3) \$43,900,000 for fiscal year 2009.

8 (c) CONFORMING AMENDMENT.—The analysis for
9 subchapter I of chapter 55 of such title is amended by
10 striking the item relating to section 5506 and inserting
11 the following:

“5506. University transportation research.”.

12 **Subtitle E—Other Programs**

13 **SEC. 5501. TRANSPORTATION SAFETY INFORMATION MAN-** 14 **AGEMENT SYSTEM PROJECT.**

15 (a) IN GENERAL.—The Secretary shall fund and
16 carry out a project to further the development of a com-
17 prehensive transportation safety information management
18 system (in this section referred to as “TSIMS”).

19 (b) PURPOSES.—The purpose of the TSIMS project
20 is to further the development of a software application to
21 provide for the collection, integration, management, and
22 dissemination of safety data from and for use among State
23 and local safety and transportation agencies, including
24 driver licensing, vehicle registration, emergency manage-



1 ment system, injury surveillance, roadway inventory, and
2 motor carrier databases.

3 (c) FUNDING.—

4 (1) FEDERAL FUNDING.—Of the amounts made
5 available by section 5101(a)(1) of this Act,
6 \$1,000,000 for fiscal years 2006 and 2007 shall be
7 available to carry out the TSIMS project under this
8 section.

9 (2) STATE CONTRIBUTION.—The sums author-
10 ized in paragraph (1) are intended to supplement
11 voluntary contributions to be made by State depart-
12 ments of transportation and other State safety and
13 transportation agencies.

14 **SEC. 5502. SURFACE TRANSPORTATION CONGESTION RE-**
15 **LIEF SOLUTIONS RESEARCH INITIATIVE.**

16 (a) ESTABLISHMENT.—The Secretary shall establish
17 a surface transportation congestion solutions research ini-
18 tiative consisting of 2 independent research programs de-
19 scribed in subsections (b)(1) and (b)(2) and designed to
20 develop information to assist State transportation depart-
21 ments and metropolitan planning organizations measure
22 and address surface transportation congestion problems.

23 (b) SURFACE TRANSPORTATION CONGESTION SOLU-
24 TIONS RESEARCH PROGRAM.—



1 (1) IMPROVED SURFACE TRANSPORTATION CON-
2 GESTION MANAGEMENT SYSTEM MEASURES.—The
3 purposes of the first research program established
4 under this section shall be—

5 (A) to examine the effectiveness of surface
6 transportation congestion management systems
7 since enactment of the Intermodal Surface
8 Transportation Efficiency Act of 1991 (Public
9 Law 102–240);

10 (B) to identify best case examples of lo-
11 cally designed reporting methods and incor-
12 porate such methods in research on national
13 models for developing and recommending im-
14 proved surface transportation congestion meas-
15 urement and reporting; and

16 (C) to incorporate such methods in the de-
17 velopment of national models and methods to
18 monitor, measure, and report surface transpor-
19 tation congestion information.

20 (2) ANALYTICAL TECHNIQUES FOR ACTION ON
21 SURFACE TRANSPORTATION CONGESTION.—The pur-
22 poses of the second research program established
23 under this section shall be—

24 (A) to analyze the effectiveness of proce-
25 dures used by State transportation departments

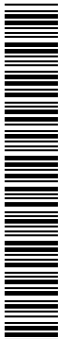


1 and metropolitan planning organizations to as-
2 sess surface transportation congestion problems
3 and communicate those problems to decision-
4 makers; and

5 (B) to identify methods to ensure that the
6 results of surface transportation congestion
7 analyses lead to the targeting of funding for
8 programs, projects, or services with dem-
9 onstrated effectiveness in reducing travel delay,
10 congestion, and system unreliability.

11 (c) TECHNICAL ASSISTANCE AND TRAINING.—In fis-
12 cal year 2006, the Secretary shall develop a technical as-
13 sistance and training program to disseminate the results
14 of the surface transportation congestion solutions research
15 initiative for the purpose of assisting State transportation
16 departments and local transportation agencies with im-
17 proving their approaches to surface transportation conges-
18 tion measurement, analysis, and project programming.

19 (d) FUNDING.—Of the amounts made available by
20 section 5101(a)(1) of this Act, \$9,000,000 for each of fis-
21 cal years 2006 through 2009 shall be available to carry
22 out subsections (a) and (b) of this section. Of the amounts
23 made available by section 5101(a)(2), \$750,000 for each
24 of fiscal years 2006 through 2009 shall be available to
25 carry out subsection (c) of this subsection.



1 **SEC. 5503. MOTOR CARRIER EFFICIENCY STUDY.**

2 (a) IN GENERAL.—The Secretary, in coordination
3 with the motor carrier and wireless technology industry,
4 shall conduct a study to—

5 (1) identify inefficiencies in the transportation
6 of freight;

7 (2) evaluate the safety, productivity, and re-
8 duced cost improvements that may be achieved
9 through the use of wireless technologies to address
10 the inefficiencies identified in paragraph (1); and

11 (3) conduct, as appropriate, field tests dem-
12 onstrating the technologies identified in paragraph
13 (2).

14 (b) PROGRAM ELEMENTS.—The program shall in-
15 clude, at a minimum, the following:

16 (1) Fuel monitoring and management systems.

17 (2) Radio frequency identification technology.

18 (3) Electronic manifest systems.

19 (4) Cargo theft prevention.

20 (c) FEDERAL SHARE.—The Federal share of the cost
21 of the study under this section shall be 100 percent.

22 (d) ANNUAL REPORT.—The Secretary shall prepare
23 and submit to Congress an annual report on the programs
24 and activities carried out under this section.

25 (e) FUNDING.—Of the amounts made available under
26 section 5101(a)(1) of this Act, the Secretary shall make



1 available \$1,250,000 to the Federal Motor Carrier Safety
2 Administration for each of fiscal years 2006 through 2009
3 to carry out this section.

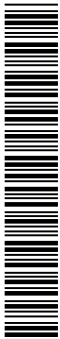
4 **SEC. 5504. CENTER FOR TRANSPORTATION ADVANCEMENT**
5 **AND REGIONAL DEVELOPMENT.**

6 (a) ESTABLISHMENT.—The Secretary shall establish
7 a Center for Transportation Advancement and Regional
8 Development (referred to in this section as the “Center”)
9 to assist, through training, education, and research, in the
10 comprehensive development of small metropolitan and
11 rural regional transportation systems that are responsive
12 to the needs of businesses and local communities.

13 (b) ACTIVITIES.—In carrying out this section, the
14 Center shall—

15 (1) provide training, information, and profes-
16 sional resources for small metropolitan and rural re-
17 gions to pursue innovative strategies to expand the
18 capabilities, capacity, and effectiveness of a region’s
19 transportation network, including activities related
20 to freight projects, transit system upgrades, road-
21 ways and bridges, and intermodal transfer facilities
22 and operations;

23 (2) assist local officials, rural transportation
24 and economic development planners, officials from
25 State departments of transportation and economic



1 development, business leaders, and other stake-
2 holders in developing public-private partnerships to
3 enhance their transportation systems; and

4 (3) promote the leveraging of regional transpor-
5 tation planning with regional economic and business
6 development planning to assure that appropriate
7 transportation systems are created.

8 (c) PROGRAM ADMINISTRATION.—To carry out this
9 section, the Secretary shall make a grant to, or enter into
10 a cooperative agreement or contract with the National As-
11 sociation of Development Organizations.

12 (d) FUNDING.—

13 (1) IN GENERAL.—Of the amounts made avail-
14 able by section 5101(a)(1) of this Act, \$625,000
15 shall be available for each of fiscal years 2006
16 through 2009 to carry out this section.

17 (2) FEDERAL SHARE.—The Federal share of
18 the cost of activities carried out in accordance with
19 this subsection shall be 100 percent.

20 **SEC. 5505. TRANSPORTATION SCHOLARSHIP OPPORTUNI-**
21 **TIES PROGRAM.**

22 (a) IN GENERAL.—

23 (1) ESTABLISHMENT OF PROGRAM.—The Sec-
24 retary may establish and implement a scholarship



1 program for the purpose of attracting qualified stu-
2 dents for transportation-related critical jobs.

3 (2) PARTNERSHIP.—The Secretary may estab-
4 lish the program in partnership with appropriate
5 nongovernmental institutions.

6 (b) PARTICIPATION.—An operating administration of
7 the Department and the Office of Inspector General may
8 participate in the scholarship program.

9 (c) FUNDING.—Notwithstanding any other provision
10 of law, the Secretary may use funds available to an oper-
11 ating administration or from the Office of Inspector Gen-
12 eral of the Department for the purpose of carrying out
13 this section.

14 **SEC. 5506. COMMERCIAL REMOTE SENSING PRODUCTS AND**
15 **SPATIAL INFORMATION TECHNOLOGIES.**

16 (a) IN GENERAL.—The Secretary shall establish and
17 carry out a program to validate commercial remote sens-
18 ing products and spatial information technologies for ap-
19 plication to national transportation infrastructure develop-
20 ment and construction.

21 (b) PROGRAM.—

22 (1) NATIONAL POLICY.—The Secretary shall es-
23 tablish and maintain a national policy for the use of
24 commercial remote sensing products and spatial in-



1 formation technologies in national transportation in-
2 frastructure development and construction.

3 (2) POLICY IMPLEMENTATION.—The Secretary
4 shall develop new applications of commercial remote
5 sensing products and spatial information tech-
6 nologies for the implementation of the national pol-
7 icy established and maintained under paragraph (1).

8 (c) COOPERATION.—The Secretary shall carry out
9 this section in cooperation with a consortium of university
10 research centers.

11 (d) FUNDING.—Of the amounts made available by
12 section 5101(a)(1) of this Act, \$7,750,000 for each of fis-
13 cal years 2006 through 2009 shall be available to carry
14 out this section.

15 **SEC. 5507. RURAL INTERSTATE CORRIDOR COMMUNICA-**
16 **TIONS STUDY.**

17 (a) STUDY.—The Secretary, in cooperation with the
18 Secretary of Commerce, State departments of transpor-
19 tation, and other appropriate State, regional, and local of-
20 ficials, shall conduct a study on the feasibility of installing
21 fiber optic cabling and wireless communication infrastruc-
22 ture along multistate Interstate System route corridors for
23 improved communications services to rural communities
24 along such corridors.



1 (b) CONTENTS OF STUDY.—In conducting the study,
2 the Secretary shall identify—

3 (1) impediments to installation of the infra-
4 structure described in subsection (a) along
5 multistate Interstate System route corridors and to
6 connecting such infrastructure to the rural commu-
7 nities along such corridors;

8 (2) the effective geographic range of such infra-
9 structure;

10 (3) potential opportunities for the private sector
11 to fund, wholly or partially, the installation of such
12 infrastructure;

13 (4) potential benefits fiber optic cabling and
14 wireless communication infrastructure may provide
15 to rural communities along such corridors, including
16 the effects of the installation of such infrastructure
17 on economic development, deployment of intelligent
18 transportation systems technologies and applica-
19 tions, homeland security precaution and response,
20 and education and health systems in those commu-
21 nities;

22 (5) rural broadband access points for such in-
23 frastructure;

24 (6) areas of environmental conflict with such in-
25 stallation;



1 (7) real estate ownership issues relating to such
2 installation;

3 (8) preliminary design for placement of fiber
4 optic cable and wireless towers;

5 (9) monetary value of the rights-of-way nec-
6 essary for such installation;

7 (10) applicability and transferability of the ben-
8 efits of such installation to other rural corridors; and

9 (11) safety and other operational issues associ-
10 ated with the installation and maintenance of fiber
11 optic cabling and wire infrastructure within Inter-
12 state System rights-of-way and other publicly owned
13 rights-of-way.

14 (c) CORRIDOR LOCATIONS.—The study required
15 under subsection (a) shall be conducted for corridors
16 along—

17 (1) Interstate Route 90 through rural Wis-
18 consin, southern Minnesota, northern Iowa, and
19 South Dakota;

20 (2) Interstate Route 20 through Alabama, Mis-
21 sissippi, and northern Louisiana;

22 (3) Interstate Route 91 through Vermont, New
23 Hampshire, and Massachusetts; and

24 (4) any other rural corridor the Secretary con-
25 siders appropriate.



1 (d) REPORT TO CONGRESS.—Not later than Sep-
2 tember 30, 2007, the Secretary shall submit to Congress
3 a report on the results of the study, including any rec-
4 ommendations of the Secretary.

5 (e) FEDERAL SHARE.—The Federal share of the cost
6 of the study shall be 100 percent.

7 (f) FUNDING.—Of the amounts made available under
8 section 5101(a)(5) of this Act, \$1,000,000 shall be avail-
9 able for fiscal year 2006, and \$2,000,000 shall be avail-
10 able for fiscal year 2007 to carry out this section.

11 **SEC. 5508. TRANSPORTATION TECHNOLOGY INNOVATION**
12 **AND DEMONSTRATION PROGRAM.**

13 Section 5117(b) of the Transportation Equity Act for
14 the 21st Century (112 Stat 449; 112 Stat. 864; 115 Stat.
15 2330) is amended by striking paragraph (3) and inserting
16 the following:

17 “(3) INTELLIGENT TRANSPORTATION INFRA-
18 STRUCTURE.—

19 “(A) DEFINITIONS.—In this paragraph:

20 “(i) CONGESTED AREA.—The term
21 ‘congested area’ means a metropolitan area
22 that experiences significant traffic conges-
23 tion, as determined by the Secretary on an
24 annual basis, including the metropolitan
25 areas of Albany, Atlanta, Austin, Bur-

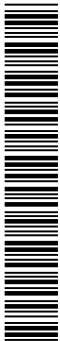


1 lington, Charlotte, Columbus, Greensboro,
2 Hartford, Jacksonville, Kansas City, Lou-
3 isville, Milwaukee, Minneapolis-St. Paul,
4 Nashville, New Orleans, Norfolk, Raleigh,
5 Richmond, Sacramento, San Jose,
6 Tuscon, and Tulsa.

7 “(ii) DEPLOYMENT AREA.—The term
8 ‘deployment area’ means any of the metro-
9 politan areas of Baltimore, Birmingham,
10 Boston, Chicago, Cleveland, Dallas/Ft.
11 Worth, Denver, Detroit, Houston, Indian-
12 apolis, Las Vegas, Los Angeles, Miami,
13 New York/Northern New Jersey, Northern
14 Kentucky/Cincinnati, Oklahoma City, Or-
15 lando, Philadelphia, Phoenix, Pittsburgh,
16 Portland, Providence, Salt Lake, San
17 Diego, San Francisco, St. Louis, Seattle,
18 Tampa, and Washington, District of Co-
19 lumbia.

20 “(iii) METROPOLITAN AREA.—The
21 term ‘metropolitan area’, including a major
22 transportation corridor serving a metro-
23 politan area, means any area that—

24 “(I) has a population exceeding
25 300,000; and



1 “(II) meets criteria established
2 by the Secretary in conjunction with
3 the intelligent vehicle highway systems
4 corridors program.

5 “(iv) ORIGINAL CONTRACT.—The
6 term ‘original contract’ means the Depart-
7 ment of Transportation contract numbered
8 DTTS 59–99–D–00445 T020013.

9 “(v) PROGRAM.—The term ‘program’
10 means the 2-part intelligent transportation
11 infrastructure program carried out under
12 this paragraph.

13 “(vi) STATE TRANSPORTATION DE-
14 PARTMENT.—The term ‘State transpor-
15 tation department’ means—

16 “(I) a State transportation de-
17 partment (as defined in section 101 of
18 title 23, United States Code); and

19 “(II) a designee of a State trans-
20 portation department (as so defined)
21 for the purpose of entering into con-
22 tracts.

23 “(vii) UNCOMMITTED FUNDS.—The
24 term ‘uncommitted funds’ means the total
25 amount of funds that, as of the date that



1 is 180 days after the date of enactment of
2 the SAFETEA-LU, remain uncommitted
3 under the original contract.

4 “(B) INTELLIGENT TRANSPORTATION IN-
5 FRASTRUCTURE PROGRAM.—

6 “(i) IN GENERAL.—The Secretary
7 shall carry out a 2-part intelligent trans-
8 portation infrastructure program in ac-
9 cordance with this paragraph to advance
10 the deployment of an operational intel-
11 ligent transportation infrastructure system,
12 through measurement of various transpor-
13 tation system activities, to
14 simultaneously—

15 “(I) aid in transportation plan-
16 ning and analysis; and

17 “(II) make a significant contribu-
18 tion to the ITS program under this
19 title.

20 “(ii) OBJECTIVES.—The objectives of
21 the program are—

22 “(I) to build or integrate an in-
23 frastructure of the measurement of
24 various transportation system metrics
25 to aid in planning, analysis, and main-



1 tenance of the Department of Trans-
2 portation, including the buildout,
3 maintenance, and operation of greater
4 than 40 metropolitan area systems
5 with a total cost not to exceed
6 \$2,000,000 for each metropolitan
7 area;

8 “(II) to provide private tech-
9 nology commercialization initiatives to
10 generate revenues that will be rein-
11 vested in the intelligent transportation
12 infrastructure system;

13 “(III) to aggregate data into re-
14 ports for multipoint data distribution
15 techniques; and

16 “(IV) with respect to part I of
17 the program under subparagraph (C),
18 to use an advanced information sys-
19 tem designed and monitored by an en-
20 tity with experience with the Depart-
21 ment of Transportation in the design
22 and monitoring of high-reliability,
23 mission-critical voice and data sys-
24 tems.

25 “(C) PART I.—



1 “(i) IN GENERAL.—In carrying out
2 part I of the program, the Secretary shall
3 permit the entity to which the original con-
4 tract was awarded to use uncommitted
5 funds to deploy intelligent transportation
6 infrastructure systems that have been ac-
7 cepted by the Secretary—

8 “(I) in accordance with the terms
9 of the original contract; and

10 “(II) in any deployment area,
11 with the consent of the State trans-
12 portation department for the deploy-
13 ment area.

14 “(ii) APPLICABLE CONDITIONS.—The
15 same asset ownership, maintenance, fixed
16 price contract, and revenue sharing model,
17 and the same competitively selected consor-
18 tium leader, as were used for the deploy-
19 ment of intelligent transportation infra-
20 structure systems under the original con-
21 tract before the date of enactment of the
22 SAFETEA-LU shall apply to each deploy-
23 ment carried out under clause (i).

24 “(iii) DEPLOYMENT IN CONGESTED
25 AREAS.—If the entity referred to in clause



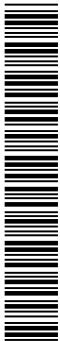
1 (i) is unable to use the uncommitted funds
2 by deploying intelligent transportation in-
3 frastructure systems in deployment areas,
4 as determined by the Secretary, the entity
5 may deploy the systems in accordance with
6 this paragraph in 1 or more congested
7 areas, with the consent of the State trans-
8 portation departments for the congested
9 areas.

10 “(D) PART II.—

11 “(i) IN GENERAL.—In carrying out
12 part II of the program, the Secretary shall
13 award, on a competitive basis, contracts
14 for the deployment of intelligent transpor-
15 tation infrastructure systems that have
16 been accepted by the Secretary in con-
17 gested areas, with the consent of the State
18 transportation departments for the con-
19 gested areas.

20 “(ii) REQUIREMENTS.—The Secretary
21 shall award contracts under clause (i)—

22 “(I) for individual congested
23 areas among entities that seek to de-
24 ploy intelligent transportation infra-



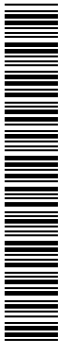
1 structure systems in the congested
2 areas; and

3 “(II) on the condition that the
4 terms of each contract awarded re-
5 quires the entity deploying such sys-
6 tem to ensure that the deployed sys-
7 tem is compatible (as determined by
8 the Secretary) with systems deployed
9 in other congested areas under this
10 paragraph.

11 “(iii) PROVISIONS IN CONTRACTS.—
12 The Secretary shall require that each con-
13 tract for the deployment of an intelligent
14 transportation infrastructure system under
15 this subparagraph contain such provisions
16 relating to asset ownership, maintenance,
17 fixed price, and revenue sharing as the
18 Secretary considers to be appropriate.

19 “(E) USE OF FUNDS FOR UNDEPLOYED
20 SYSTEMS.—

21 “(i) IN GENERAL.—If, under part I or
22 part II of the program, a State transpor-
23 tation department for a deployment area
24 or congested area does not consent by the
25 later of the date that is 180 days after the



1 date of enactment of the SAFETEA-LU,
2 or another date determined jointly by the
3 State transportation department and the
4 deployment area or congested area, to par-
5 ticipate in the deployment of an intelligent
6 transportation infrastructure system in the
7 deployment area or congested area, upon
8 application by any other deployment area
9 or congested area that has consented by
10 that date to participate in the deployment
11 of such a system, the Secretary shall dis-
12 tribute any such unused funds to any other
13 deployment or congested area that has
14 consented by that date to participate in the
15 deployment of such a system.

16 “(ii) NO INCLUSION IN COST LIMITA-
17 TION.—Costs paid using funds provided
18 through a distribution under clause (i)
19 shall not be considered in determining the
20 limitation on maximum cost described in
21 subparagraph (F)(ii).

22 “(F) FEDERAL SHARE; LIMITS ON COSTS
23 OF SYSTEMS FOR METROPOLITAN AREAS.—

24 “(i) FEDERAL SHARE.—Subject to
25 clause (ii), the Federal share of the cost of



1 any project or activity carried out under
2 the program shall be 80 percent.

3 “(ii) LIMIT ON COSTS OF SYSTEM FOR
4 EACH METROPOLITAN AREA.—

5 “(I) IN GENERAL.—Not more
6 than \$2,000,000 may be provided
7 under this paragraph for deployment
8 of an intelligent transportation infra-
9 structure system for a metropolitan
10 area.

11 “(II) FUNDING UNDER EACH
12 PART.—A metropolitan area in which
13 an intelligent transportation infra-
14 structure system is deployed under
15 part I or part II under subparagraphs
16 (C) and (D), respectively, including
17 through a distribution of funds under
18 subparagraph (E), may not receive
19 any additional deployment under the
20 other part of the program.

21 “(G) USE OF RIGHTS-OF-WAY.—

22 “(i) IN GENERAL.—An intelligent
23 transportation system project described in
24 this paragraph or paragraph (6) that in-
25 volves privately-owned intelligent transpor-



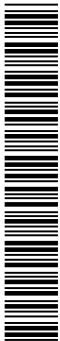
1 tation system components and is carried
2 out using funds made available from the
3 Highway Trust Fund shall not be subject
4 to any law (including a regulation) of a
5 State or political subdivision of a State
6 prohibiting or regulating commercial activi-
7 ties in the rights-of-way of a highway for
8 which Federal-aid highway funds have
9 been used for planning, design, construc-
10 tion, or maintenance for the project, if the
11 Secretary determines that such use is in
12 the public interest.

13 “(ii) EFFECT OF SUBPARAGRAPH.—
14 Nothing in this subparagraph affects the
15 authority of a State or political subdivision
16 of a State—

17 “(I) to regulate highway safety;
18 or

19 “(II) under sections 253 and
20 332(c)(7) of the Communications Act
21 of 1934 (47 U.S.C. 253, 332(c)(7)).

22 “(H) AUTHORIZATION OF APPROPRIA-
23 TIONS.—There is authorized to be appropriated
24 such sums as may be necessary for each of fis-



1 cal years 2005 through 2009 to carry out this
2 paragraph. ”.

3 **SEC. 5509. REPEAL.**

4 Effective October 1 of 2005, sections 5208 and 5209
5 of subtitle C of title V of The Transportation Equity Act
6 for the 21st Century (23 U.S.C. 502 note; 112 Stat. 452–
7 463) is repealed.

8 **SEC. 5510. NOTICE.**

9 (a) NOTICE OF REPROGRAMMING.—If any funds au-
10 thorized for carrying out this title or the amendments
11 made by this title are subject to a reprogramming action
12 that requires notice to be provided to the Committees on
13 Appropriations, Transportation and Infrastructure, and
14 Science of the House of Representatives and the Commit-
15 tees on Appropriations and Environment and Public
16 Works of the Senate, notice of that action shall be concur-
17 rently provided to the Committee of Transportation and
18 Infrastructure and the Committee on Science of the House
19 of Representative and the Committee on Environment and
20 Public Works of the Senate.

21 (b) NOTICE OF REORGANIZATION.—On or before the
22 15th day preceding the date of any major reorganization
23 of a program, project, or activity of the Department for
24 which funds are authorized by this title or the amend-
25 ments made by this title, the Secretary shall provide notice



1 of the reorganization to the Committees on Transportation
2 and Infrastructure and Science of the House of Represent-
3 atives and the Committee on Environment and Public
4 Works of the Senate.

5 **SEC. 5511. MOTORCYCLE CRASH CAUSATION STUDY**
6 **GRANTS.**

7 (a) GRANTS.—The Secretary shall provide grants to
8 the Oklahoma Transportation Center for the purpose of
9 conducting a comprehensive, in-depth motorcycle crash
10 causation study that employs the common international
11 methodology for in-depth motorcycle accident investigation
12 of the Organization for Economic Cooperation and Devel-
13 opment.

14 (b) FUNDING.—Of the amounts made available under
15 section 5101(a)(1) of this Act, \$1,408,000 for each of fis-
16 cal years 2006 and 2007 shall be available to carry out
17 this section.

18 **SEC. 5512. ADVANCED TRAVEL FORECASTING PROCEDURES**
19 **PROGRAM.**

20 (a) CONTINUATION AND ACCELERATION OF
21 TRANSIMS DEPLOYMENT.—

22 (1) IN GENERAL.—The Secretary shall accel-
23 erate the deployment of the advanced transportation
24 model known as the “Transportation Analysis Sim-
25 ulation System” (in this section referred to as



1 “TRANSIMS”), developed by the Los Alamos Na-
2 tional Laboratory.

3 (2) PROGRAM APPRECIATION.—The purpose of
4 the program is to assist State departments of trans-
5 portation and metropolitan planning organizations—

6 (A) to implement TRANSIMS;

7 (B) to develop methods for TRANSIMS
8 applications to transportation planning, air
9 quality analysis, regulatory compliance, and re-
10 sponse to natural disasters and other transpor-
11 tation disruptions; and

12 (C) to provide training and technical as-
13 sistance for the implementation of TRANSIMS.

14 (b) REQUIRED ACTIVITIES.—The Secretary shall use
15 funds made available to carry out this section to—

16 (1) provide funding to State departments of
17 transportation and metropolitan planning organiza-
18 tions serving transportation management areas des-
19 ignated under chapter 52 of title 49, United States
20 Code, representing a diversity of populations, geo-
21 graphic regions, and analytic needs to implement
22 TRANSIMS;

23 (2) develop methods to demonstrate a wide
24 spectrum of TRANSIMS applications to support
25 local, metropolitan, statewide transportation plan-



1 ning, including integrating highway and transit
2 operational considerations into the transportation
3 Planning process, and estimating the effects of in-
4 duced travel demand and transit ridership in making
5 transportation conformity determinations where ap-
6 plicable;

7 (3) provide training and technical assistance
8 with respect to the implementation and application
9 of TRANSIMS to States, local governments, and
10 metropolitan planning organizations with responsi-
11 bility for travel modeling;

12 (4) to further develop TRANSIMS for addi-
13 tional applications, including—

- 14 (A) congestion analyses;
- 15 (B) major investment studies;
- 16 (C) economic impact analyses;
- 17 (D) alternative analyses;
- 18 (E) freight movement studies;
- 19 (F) emergency evacuation studies;
- 20 (G) port studies; and
- 21 (H) airport access studies;
- 22 (I) induced demand studies; and
- 23 (J) transit ridership analysis.

24 (c) ELIGIBLE ACTIVITIES.—The program may sup-
25 port the development of methods to plan for the transpor-



1 tation response to chemical and biological terrorism and
2 other security concerns.

3 (d) ALLOCATION OF FUNDS.—Not more than 75 per-
4 cent of the funds made available to carry out this section
5 may be allocated to activities described in subsection
6 (b)(1).

7 (e) FUNDING.—Of the amounts made available by
8 section 5101(a)(1) of this Act, \$2,625,000 for each of fis-
9 cal years 2006 through 2009 shall be available to carry
10 out this section.

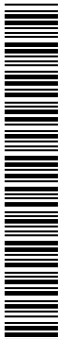
11 **SEC. 5513. RESEARCH GRANTS.**

12 (a) THERMAL IMAGING.—

13 (1) IN GENERAL.—The Secretary shall make a
14 grant to carry out a demonstration project that uses
15 a thermal imaging inspection system (TIIS) that
16 leverages state-of-the-art thermal imagery tech-
17 nology, integrated with signature recognition soft-
18 ware, providing the capability to identify, in real
19 time, faults and failures in tires, brakes and bear-
20 ings mounted on commercial motor vehicles.

21 (2) USE OF FUNDS.—Funds shall be used—

22 (A) to employ a TIIS in a field environ-
23 ment, along the Interstate, to further assess the
24 system's ability to identify faults in tires,



1 brakes, and bearings mounted on commercial
2 motor vehicles;

3 (B) to establish, through statistical anal-
4 ysis, the probability of failure for each compo-
5 nent; and

6 (C) to develop and integrate a predictive
7 tool into the TIIIS, which identifies an impend-
8 ing tire, brake, or bearing failure and provides
9 the use a time frame in which this failure may
10 occur.

11 (3) FUNDING.—Of the amounts made available
12 under section 5101(a)(1) of this Act, \$2,000,000 in
13 fiscal year 2006 shall be available to carry out this
14 subsection.

15 (b) TRANSPORTATION INJURY RESEARCH.—

16 (1) GRANT.—The Secretary shall make a grant
17 to maintain a center for transportation injury re-
18 search at the Calspan University of Buffalo Re-
19 search Center, through the North Campus facility
20 located in Amherst, New York, and affiliated with
21 the State University of New York at Buffalo.

22 (2) RECOUP COSTS.— Notwithstanding current
23 law, Federal regulations, or Office of Management
24 and Budget circulars or guidance, the Center shall
25 be permitted to recoup direct and indirect costs and



1 apply a 7 percent fee to the grant made under this
2 subsection.

3 (3) FUNDING.—Of the amounts made available
4 under section 5101(a)(1) of this Act, \$1,250,000 in
5 each of fiscal years 2006 through 2009 shall be
6 available to carry out this subsection.

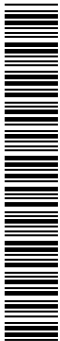
7 (c) TECHNOLOGY TRANSFER GRANT.—

8 (1) GRANT.—The Secretary shall make grants
9 to the Argonne National Laboratory-Advanced
10 Transportation Technology Center for the purpose
11 of conducting transportation research and dem-
12 onstration projects that would lead to the exchange
13 of research results with the private sector and col-
14 laboration with universities at a centralized location
15 conducive for technology transfer.

16 (2) FUNDING.—Of the amounts made available
17 under section 5101(a)(1) of this Act, \$4,000,000 in
18 each of fiscal years 2006 through 2009 shall be
19 available to carry out this subsection.

20 (d) APPALACHIAN REGIONAL COMMISSION.—

21 (1) GRANT.—The Secretary shall make a grant
22 to the Appalachian Regional Commission to conduct
23 a feasibility study for the creation of a system of in-
24 land ports and distribution centers in Appalachia.



1 (2) FUNDING.—Of the amounts made available
2 under section 5101(a)(1) of this Act, \$500,000 in
3 fiscal year 2006 shall be available to carry out this
4 subsection.

5 (e) AUTOMOBILE ACCIDENT INJURY RESEARCH.—

6 (1) GRANTS.—The Secretary shall make a
7 grant to the Forsyth Institute for research and tech-
8 nology development for preventing and minimizing
9 head, craniofacial, and spinal cord injuries resulting
10 from automobile accidents.

11 (2) FUNDING.—Of the amounts made available
12 under section 5101(a)(1) of this Act, \$500,000 in
13 each of fiscal years 2006 through 2009 shall be
14 available to carry out this subsection.

15 (f) RURAL TRANSPORTATION RESEARCH.—

16 (1) GRANTS.—The Secretary shall make grants
17 to the New England Transportation Institute in
18 White River Junction, Vermont for rural transpor-
19 tation research.

20 (2) FUNDING.—

21 (A) IN GENERAL.—Of the amounts made
22 available by section 5101(a)(1) of this Act,
23 \$1,000,000 for fiscal year 2006 shall be avail-
24 able to carry out this subsection and shall re-
25 main available until expended.



1 (B) COST-SHARING.—

2 (i) FEDERAL SHARE.—The Federal
3 Share of the cost of activities carried out
4 under this subsection shall be 80 percent.

5 (ii) NON-FEDERAL SHARE.—The fair
6 market value of any materials or services
7 provided by the non-Federal sponsor for
8 activities under this subsection shall be
9 credited to the non-Federal share.

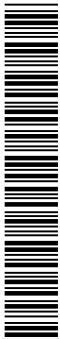
10 (g) RURAL TRANSPORTATION RESEARCH INITIA-
11 TIVE.—

12 (1) GRANTS.—For each of fiscal years 2006
13 through 2009, the Secretary shall provide a grant to
14 the Upper Great Plains Transportation Institute at
15 North Dakota State University for use in carrying
16 out the Rural Transportation Research Initiative.

17 (2) FUNDING.—

18 (A) IN GENERAL.—Of the amounts made
19 available by section 5101(a)(1) of this Act,
20 \$500,000 for each of fiscal years 2006 through
21 2009 shall be available to carry out this sub-
22 section, and shall remain available until ex-
23 pended.

24 (B) COST-SHARING.—



1 (i) FEDERAL SHARE.—The Federal
2 share of the cost of the activities carried
3 out under this subsection shall be 80 per-
4 cent.

5 (ii) NON-FEDERAL SHARE.—The fair
6 market value of any materials or services
7 provided by the non-Federal project spon-
8 sor for any activity under this subsection
9 shall be credited to the non-Federal share.

10 (h) HYDROGEN-POWERED TRANSPORTATION RE-
11 SEARCH INITIATIVE.—

12 (1) GRANTS.—For each of fiscal years 2006
13 through 2009, the Secretary shall provide a grant to
14 the University of Montana for use in carrying out
15 the Hydrogen-Powered Transportation Research Ini-
16 tiative.

17 (2) FUNDING.—

18 (A) IN GENERAL.—Of the amounts made
19 available by section 5101(a)(1) of this Act,
20 \$750,000 for each of fiscal years 2006 through
21 2009 shall be available to carry out this sub-
22 section, and shall remain available until ex-
23 pended.

24 (B) COST-SHARING.—



1 (i) FEDERAL SHARE.—The Federal
2 share of the cost of the activities carried
3 out under this subsection shall be 80 per-
4 cent.

5 (ii) NON-FEDERAL SHARE.—The fair
6 market value of any materials or services
7 provided by the non-Federal project spon-
8 sor for an activity under this subsection
9 shall be credited to the non-Federal share.

10 (i) COLD REGION AND RURAL TRANSPORTATION RE-
11 SEARCH, MAINTENANCE, AND OPERATIONS.—

12 (1) GRANTS.—The Secretary shall provide
13 grants to the Western Transportation Institute at
14 Montana State University, for use in developing a
15 research facility in Lewistown, Montana, for basic
16 and applied research and testing on surface trans-
17 portation issues facing rural and cold regions.

18 (2) FUNDING.—

19 (A) IN GENERAL.—Of the amounts made
20 available by section 5101(a)(1) of this Act,
21 \$1,000,000 for each of fiscal years 2006
22 through 2009 shall be available to carry out
23 this subsection, to remain available until ex-
24 pended.

25 (B) COST-SHARING.—



1 (i) FEDERAL SHARE.—The Federal
2 share of the cost of the activities carried
3 out under this subsection shall be 80 per-
4 cent.

5 (ii) NON-FEDERAL SHARE.—The fair
6 market value of any materials or services
7 provided by the non-Federal project spon-
8 sor for an activity under this section shall
9 be credited to the non-Federal share.

10 (j) ADVANCED VEHICLE TECHNOLOGY.—

11 (1) GRANT.—The Secretary shall make a grant
12 to the University of Kansas Transportation Re-
13 search Institute for research and development of ad-
14 vanced vehicle technology concepts, focused on vehi-
15 cle emissions, fuel cells and catalytic processes, and
16 intelligent transportation systems.

17 (2) FUNDING.—Of the amounts made available
18 under section 5101(a)(1) of this Act, \$2,500,000 in
19 each of fiscal years 2006 through 2009 shall be
20 available to carry out this subsection.

21 (k) ASPHALT RESEARCH CONSORTIUM.—

22 (1) GRANT.—The Secretary shall make a grant
23 to the asphalt research consortium lead by the West-
24 ern Research Institute to research flexible pavement
25 and extending the life-cycle of asphalts.



1 (2) FUNDING.—Of the amounts made available
2 under section 5101(a)(1) of this Act, \$7,500,000 in
3 each of fiscal years 2006 through 2009 shall be
4 available to carry out this subsection.

5 (1) RENEWABLE TRANSPORTATION SYSTEMS RE-
6 SEARCH.—

7 (1) GRANTS.—The Secretary shall make grants
8 to the University of Vermont for research, develop-
9 ment and field testing of hydrogen fuel cell and
10 biofuel transportation technology.

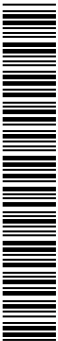
11 (2) FUNDING.—

12 (A) IN GENERAL.—Of the amounts made
13 available for section 5101(a)(1) of this Act,
14 \$1,000,000 for fiscal year 2006 to remain avail-
15 able until expended.

16 (B) COST-SHARING.—

17 (i) FEDERAL SHARE.—The Federal
18 Share of the cost of activities carried out
19 under this section shall be 80 percent.

20 (ii) NON-FEDERAL SHARE.—The fair
21 market value of any materials or services
22 provided by the non-federal sponsor for ac-
23 tivities under this section shall be credited
24 to the non-federal share.



1 (m) FEDERAL SHARE.—The Federal share of the
2 cost of activities carried out in accordance with this sec-
3 tion shall be 80 percent unless otherwise expressly pro-
4 vided by this section or otherwise determined by the Sec-
5 retary.

6 **SEC. 5514. COMPETITION FOR SPECIFICATION OF ALTER-**
7 **NATIVE TYPES OF CULVERT PIPES.**

8 Notwithstanding any contrary interpretation of ap-
9 pendix A of subpart D of section 635.411 of volume 23,
10 Code of Federal Regulations (as in existence on the date
11 of enactment of this Act), not later than 180 days after
12 the date of enactment of this Act, the Secretary shall en-
13 sure that States provide for competition with respect to
14 the specification of alternative types of culvert pipes
15 through requirements that are commensurate with com-
16 petition requirements for other construction materials, as
17 determined by the Secretary.

18 **Subtitle F—Bureau of**
19 **Transportation Statistics**

20 **SEC. 5601. BUREAU OF TRANSPORTATION STATISTICS.**

21 (a) IN GENERAL.—Section 111 of title 49, United
22 States Code, is amended to read as follows:



1 **“§ 111. Bureau of Transportation Statistics**

2 “(a) ESTABLISHMENT.—There is established in the
3 Research and Innovative Technology Administration a Bu-
4 reau of Transportation Statistics.

5 “(b) DIRECTOR.—

6 “(1) APPOINTMENT.—The Bureau shall be
7 headed by a Director who shall be appointed in the
8 competitive service by the Secretary of Transpor-
9 tation.

10 “(2) QUALIFICATIONS.—The Director shall be
11 appointed from among individuals who are qualified
12 to serve as the Director by virtue of their training
13 and experience in the collection, analysis, and use of
14 transportation statistics.

15 “(c) RESPONSIBILITIES.—The Director of the Bu-
16 reau shall serve as the Secretary’s senior advisor on data
17 and statistics and shall be responsible for carrying out the
18 following duties:

19 “(1) PROVIDING DATA, STATISTICS, AND ANAL-
20 YSIS TO TRANSPORTATION DECISIONMAKERS.—En-
21 suring that the statistics compiled under paragraph
22 (5) are designed to support transportation decision-
23 making by the Federal Government, State and local
24 governments, metropolitan planning organizations,
25 transportation-related associations, the private sec-



1 tor (including the freight community), and the pub-
2 lic.

3 “(2) COORDINATING COLLECTION OF INFORMA-
4 TION.—Working with the operating administrations
5 of the Department to establish and implement the
6 Bureau’s data programs and to improve the coordi-
7 nation of information collection efforts with other
8 Federal agencies.

9 “(3) DATA MODERNIZATION.—Continually im-
10 proving surveys and data collection methods to im-
11 prove the accuracy and utility of transportation sta-
12 tistics.

13 “(4) ENCOURAGING DATA STANDARDIZATION.—
14 Encouraging the standardization of data, data col-
15 lection methods, and data management and storage
16 technologies for data collected by the Bureau, the
17 operating administrations of the Department of
18 Transportation, States, local governments, metro-
19 politan planning organizations, and private sector
20 entities.

21 “(5) TRANSPORTATION STATISTICS.—Col-
22 lecting, compiling, analyzing, and publishing a com-
23 prehensive set of transportation statistics on the per-
24 formance and impacts of the national transportation
25 system, including statistics on—



1 “(A) productivity in various parts of the
2 transportation sector;

3 “(B) traffic flows for all modes of trans-
4 portation;

5 “(C) other elements of the intermodal
6 transportation database established under sub-
7 section (e);

8 “(D) travel times and measures of conges-
9 tion;

10 “(E) vehicle weights and other vehicle
11 characteristics;

12 “(F) demographic, economic, and other
13 variables influencing traveling behavior, includ-
14 ing choice of transportation mode and goods
15 movement;

16 “(G) transportation costs for passenger
17 travel and goods movement;

18 “(H) availability and use of mass transit
19 (including the number of passengers served by
20 each mass transit authority) and other forms of
21 for-hire passenger travel;

22 “(I) frequency of vehicle and transpor-
23 tation facility repairs and other interruptions of
24 transportation service;



1 “(J) safety and security for travelers, vehi-
2 cles, and transportation systems;

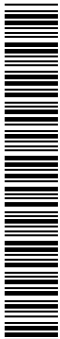
3 “(K) consequences of transportation for
4 the human and natural environment;

5 “(L) the extent, connectivity, and condition
6 of the transportation system, building on the
7 national transportation atlas database devel-
8 oped under subsection (g); and

9 “(M) transportation-related variables that
10 influence the domestic economy and global com-
11 petitiveness.

12 “(6) NATIONAL SPATIAL DATA INFRASTRUC-
13 TURE.—Building and disseminating the transpor-
14 tation layer of the National Spatial Data Infrastruc-
15 ture developed under Executive Order No. 12906,
16 including coordinating the development of transpor-
17 tation geospatial data standards, compiling inter-
18 modal geospatial data, and collecting geospatial data
19 that is not being collected by others.

20 “(7) ISSUING GUIDELINES.—Issuing guidelines
21 for the collection of information by the Department
22 required for statistics to be compiled under para-
23 graph (5) in order to ensure that such information
24 is accurate, reliable, relevant, and in a form that
25 permits systematic analysis.



1 “(8) REVIEW SOURCES AND RELIABILITY OF
2 STATISTICS.—Reviewing and reporting to the Sec-
3 retary on the sources and reliability of the statistics
4 proposed by the heads of the operating administra-
5 tions of the Department to measure outputs and
6 outcomes as required by the Government Perform-
7 ance and Results Act of 1993 (Public Law 103–62;
8 107 Stat. 285), and the amendments made by such
9 Act, and carrying out such other reviews of the
10 sources and reliability of other data collected or sta-
11 tistical information published by the heads of the op-
12 erating administrations of the Department as shall
13 be requested by the Secretary.

14 “(9) MAKING STATISTICS ACCESSIBLE.—Mak-
15 ing the statistics published under this subsection
16 readily accessible to the public.

17 “(d) INFORMATION NEEDS ASSESSMENT.—

18 “(1) IN GENERAL.—Not later than 60 days
19 after the date of enactment of the SAFETEA–LU,
20 the Secretary shall enter into an agreement with the
21 National Research Council to develop and publish a
22 National transportation information needs assess-
23 ment (referred to in this subsection as the ‘assess-
24 ment’). The assessment shall be submitted to the
25 Secretary and the appropriate committees of Con-



1 gress not later than 24 months after such agreement
2 is entered into.

3 “(2) CONTENT.—The assessment shall—

4 “(A) identify, in order of priority, the
5 transportation data that is not being collected
6 by the Bureau, operating administrations of the
7 Department, or other Federal, State, or local
8 entities, but is needed to improve transportation
9 decisionmaking at the Federal, State, and local
10 levels and to fulfill the requirements of sub-
11 section (c)(5);

12 “(B) recommend whether the data identi-
13 fied in subparagraph (A) should be collected by
14 the Bureau, other parts of the Department, or
15 by other Federal, State, or local entities, and
16 whether any data is of a higher priority than
17 data currently being collected;

18 “(C) identify any data the Bureau or other
19 Federal, State, or local entity is collecting that
20 is not needed;

21 “(D) describe new data collection methods
22 (including changes in surveys) and other
23 changes the Bureau or other Federal, State, or
24 local entity should implement to improve the



1 standardization, accuracy, and utility of trans-
2 portation data and statistics; and

3 “(E) estimate the cost of implementing
4 any recommendations.

5 “(3) CONSULTATION.—In developing the as-
6 sessment, the National Research Council shall con-
7 sult with the Department’s Advisory Council on
8 Transportation Statistics and a representative cross-
9 section of transportation community stakeholders as
10 well as other Federal agencies, including the Envi-
11 ronmental Protection Agency, the Department of
12 Energy, and the Department of Housing and Urban
13 Development.

14 “(4) REPORT TO CONGRESS.—Not later than
15 180 days after the date on which the National Re-
16 search Council submits the assessment under para-
17 graph (1), the Secretary shall submit a report to
18 Congress that describes—

19 “(A) how the Department plans to fill the
20 data gaps identified under paragraph (2)(A);

21 “(B) how the Department plans to stop
22 collecting data identified under paragraph
23 (2)(C);

24 “(C) how the Department plans to imple-
25 ment improved data collection methods and



1 other changes identified under paragraph
2 (2)(D);

3 “(D) the expected costs of implementing
4 subparagraphs (A), (B), and (C) of this para-
5 graph;

6 “(E) any findings of the assessment under
7 paragraph (1) with which the Secretary dis-
8 agrees, and why; and

9 “(F) any proposed statutory changes need-
10 ed to implement the findings of the assessment
11 under paragraph (1).

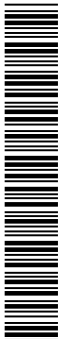
12 “(e) INTERMODAL TRANSPORTATION DATABASE.—

13 “(1) IN GENERAL.—In consultation with the
14 Under Secretary for Policy, the Assistant Secre-
15 taries, and the heads of the operating administra-
16 tions of the Department, the Director shall establish
17 and maintain a transportation database for all
18 modes of transportation.

19 “(2) USE.—The database shall be suitable for
20 analyses carried out by the Federal Government, the
21 States, and metropolitan planning organizations.

22 “(3) CONTENTS.—The database shall include—

23 “(A) information on the volumes and pat-
24 terns of movement of goods, including local,
25 interregional, and international movement, by



1 all modes of transportation and intermodal
2 combinations and by relevant classification;

3 “(B) information on the volumes and pat-
4 terns of movement of people, including local,
5 interregional, and international movements, by
6 all modes of transportation (including bicycle
7 and pedestrian modes) and intermodal combina-
8 tions and by relevant classification;

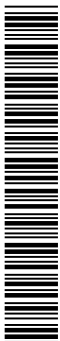
9 “(C) information on the location and
10 connectivity of transportation facilities and
11 services; and

12 “(D) a national accounting of expenditures
13 and capital stocks on each mode of transpor-
14 tation and intermodal combination.

15 “(f) NATIONAL TRANSPORTATION LIBRARY.—

16 “(1) IN GENERAL.—The Director shall establish
17 and maintain a National Transportation Library,
18 which shall contain a collection of statistical and
19 other information needed for transportation decision-
20 making at the Federal, State, and local levels.

21 “(2) ACCESS.—The Director shall facilitate and
22 promote access to the Library, with the goal of im-
23 proving the ability of the transportation community
24 to share information and the ability of the Director



1 to make statistics readily accessible under subsection
2 (c)(9).

3 “(3) COORDINATION.—The Director shall work
4 with other transportation libraries and transpor-
5 tation information providers, both public and pri-
6 vate, to achieve the goal specified in paragraph (2).

7 “(g) NATIONAL TRANSPORTATION ATLAS DATA-
8 BASE.—

9 “(1) IN GENERAL.—The Director shall develop
10 and maintain a national transportation atlas data-
11 base that is comprised of geospatial databases that
12 depict—

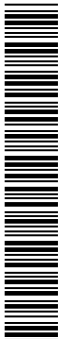
13 “(A) transportation networks;

14 “(B) flows of people, goods, vehicles, and
15 craft over the networks; and

16 “(C) social, economic, and environmental
17 conditions that affect or are affected by the net-
18 works.

19 “(2) INTERMODAL NETWORK ANALYSIS.—The
20 databases shall be able to support intermodal net-
21 work analysis.

22 “(h) MANDATORY RESPONSE AUTHORITY FOR
23 FREIGHT DATA COLLECTION.—Whoever, being the
24 owner, official, agent, person in charge, or assistant to the
25 person in charge of any freight corporation, company,



1 business, institution, establishment, or organization of any
2 nature whatsoever, neglects or refuses, when requested by
3 the Director or other authorized officer, employee, or con-
4 tractor of the Bureau, to answer completely and correctly
5 to the best of the individual's knowledge all questions re-
6 lating to the corporation, company, business, institution,
7 establishment, or other organization, or to make available
8 records or statistics in the individual's official custody,
9 contained in a data collection request prepared and sub-
10 mitted under the authority of subsection (c)(1), shall be
11 fined not more than \$500; but if the individual willfully
12 gives a false answer to such a question, the individual shall
13 be fined not more than \$10,000.

14 “(i) RESEARCH AND DEVELOPMENT GRANTS.—The
15 Secretary may make grants to, or enter into cooperative
16 agreements or contracts with, public and nonprofit private
17 entities (including State transportation departments, met-
18 ropolitan planning organizations, and institutions of high-
19 er education) for—

20 “(1) investigation of the subjects specified in
21 subsection (c)(5) and research and development of
22 new methods of data collection, standardization,
23 management, integration, dissemination, interpreta-
24 tion, and analysis;



1 “(2) demonstration programs by States, local
2 governments, and metropolitan planning organiza-
3 tions to coordinate data collection, reporting, man-
4 agement, storage, and archiving to simplify data
5 comparisons across jurisdictions;

6 “(3) development of electronic clearinghouses of
7 transportation data and related information, as part
8 of the National Transportation Library under sub-
9 section (f); and

10 “(4) development and improvement of methods
11 for sharing geographic data, in support of the data-
12 base under subsection (g) and the National Spatial
13 Data Infrastructure.

14 “(j) LIMITATIONS ON STATUTORY CONSTRUCTION.—
15 Nothing in this section shall be construed—

16 “(1) to authorize the Bureau to require any
17 other department or agency to collect data; or

18 “(2) to reduce the authority of any other officer
19 of the Department to collect and disseminate data
20 independently.

21 “(k) PROHIBITION ON CERTAIN DISCLOSURES.—

22 “(1) IN GENERAL.—An officer, employee, or
23 contractor of the Bureau may not—



1 “(A) make any disclosure in which the
2 data provided by an individual or organization
3 under subsection (c) can be identified;

4 “(B) use the information provided under
5 subsection (c) for a nonstatistical purpose; or

6 “(C) permit anyone other than an indi-
7 vidual authorized by the Director to examine
8 any individual report provided under subsection
9 (c).

10 “(2) COPIES OF REPORTS.—

11 “(A) IN GENERAL.—No department, bu-
12 reau, agency, officer, or employee of the United
13 States (except the Director in carrying out this
14 section) may require, for any reason, a copy of
15 any report that has been filed under subsection
16 (c) with the Bureau or retained by an indi-
17 vidual respondent.

18 “(B) LIMITATION ON JUDICIAL PRO-
19 CEEDINGS.—A copy of a report described in
20 subparagraph (A) that has been retained by an
21 individual respondent or filed with the Bureau
22 or any of its employees, contractors, or
23 agents—

24 “(i) shall be immune from legal proc-
25 ess; and

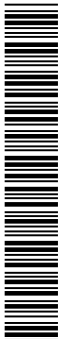


1 “(ii) shall not, without the consent of
2 the individual concerned, be admitted as
3 evidence or used for any purpose in any
4 action, suit, or other judicial or adminis-
5 trative proceedings.

6 “(C) APPLICABILITY.—This paragraph
7 shall apply only to reports that permit informa-
8 tion concerning an individual or organization to
9 be reasonably determined by direct or indirect
10 means.

11 “(3) INFORMING RESPONDENT OF USE OF
12 DATA.—In a case in which the Bureau is authorized
13 by statute to collect data or information for a non-
14 statistical purpose, the Director shall clearly distin-
15 guish the collection of the data or information, by
16 rule and on the collection instrument, so as to in-
17 form a respondent who is requested or required to
18 supply the data or information of the nonstatistical
19 purpose.

20 “(1) TRANSPORTATION STATISTICS ANNUAL RE-
21 PORT.—The Director shall submit to the President and
22 Congress a transportation statistics annual report which
23 shall include information on items referred to in sub-
24 section (c)(5), documentation of methods used to obtain
25 and ensure the quality of the statistics presented in the



1 report, and recommendations for improving transportation
2 statistical information.

3 “(m) DATA ACCESS.—The Director shall have access
4 to transportation and transportation-related information
5 in the possession of any Federal agency, except
6 information—

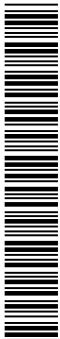
7 “(1) the disclosure of which to another Federal
8 agency is expressly prohibited by law; or

9 “(2) the disclosure of which the agency pos-
10 sessing the information determines would signifi-
11 cantly impair the discharge of authorities and re-
12 sponsibilities which have been delegated to, or vested
13 by law, in such agency.

14 “(n) PROCEEDS OF DATA PRODUCT SALES.—Not-
15 withstanding section 3302 of title 31, funds received by
16 the Bureau from the sale of data products, for necessary
17 expenses incurred, may be credited to the Highway Trust
18 Fund (other than the Mass Transit Account) for the pur-
19 pose of reimbursing the Bureau for the expenses.

20 “(o) ADVISORY COUNCIL ON TRANSPORTATION STA-
21 TISTICS.—

22 “(1) ESTABLISHMENT.—The Director shall es-
23 tablish an advisory council on transportation statis-
24 tics.



1 “(2) FUNCTION.—The function of the advisory
2 council established under this subsection is to—

3 “(A) advise the Director on the quality, re-
4 liability, consistency, objectivity, and relevance
5 of transportation statistics and analyses col-
6 lected, supported, or disseminated by the Bu-
7 reau and the Department;

8 “(B) provide input to and review the re-
9 port to Congress under subsection (d)(4); and

10 “(C) advise the Director on methods to en-
11 courage cooperation and interoperability of
12 transportation data collected by the Bureau, the
13 operating administrations of the Department,
14 States, local governments, metropolitan plan-
15 ning organizations, and private sector entities.

16 “(3) MEMBERSHIP.—The advisory council es-
17 tablished under this subsection shall be composed of
18 not fewer than 9 and not more than 11 members ap-
19 pointed by the Director, who are not officers or em-
20 ployees of the United States. Each member shall
21 have expertise in transportation data collection or
22 analysis or application; except that 1 member shall
23 have expertise in economics, 1 member shall have ex-
24 pertise in statistics, and 1 member shall have experi-
25 ence in transportation safety. At least 1 member



1 shall be a senior official of a State department of
2 transportation. Members shall include representation
3 of a cross-section of transportation community
4 stakeholders.

5 “(4) TERMS OF APPOINTMENT.—

6 “(A) IN GENERAL.—Except as provided in
7 subparagraph (B), members of the advisory
8 council shall be appointed to staggered terms
9 not to exceed 3 years. A member may be re-
10 nominated for 1 additional 3-year term.

11 “(B) CURRENT MEMBERS.—Members serv-
12 ing on the Advisory Council on Transportation
13 Statistics as of the date of enactment of the
14 SAFETEA-LU shall serve until the end of
15 their appointed terms.

16 “(5) APPLICABILITY OF FEDERAL ADVISORY
17 COMMITTEE ACT.—The Federal Advisory Committee
18 Act shall apply to the Advisory Council established
19 under this subsection, except that section 14 of such
20 Act shall not apply.”.

